

QUADRANGLE LOCATION



Scale In Feet
0 1000 2000

Source:
Base map taken from <http://www.tnris.state.tx.us> Freeport, Texas 7.5 min.
U.S.G.S. quadrangle, 1974.

GULFCO MARINE MAINTENANCE FREEPORT, BRAZORIA COUNTY, TEXAS

Figure 1 SITE LOCATION MAP

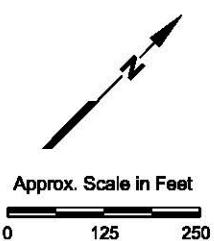
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DATE: SEPT., 2011	CHECKED: EFP	

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EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- - - Lot Boundary (approximate)



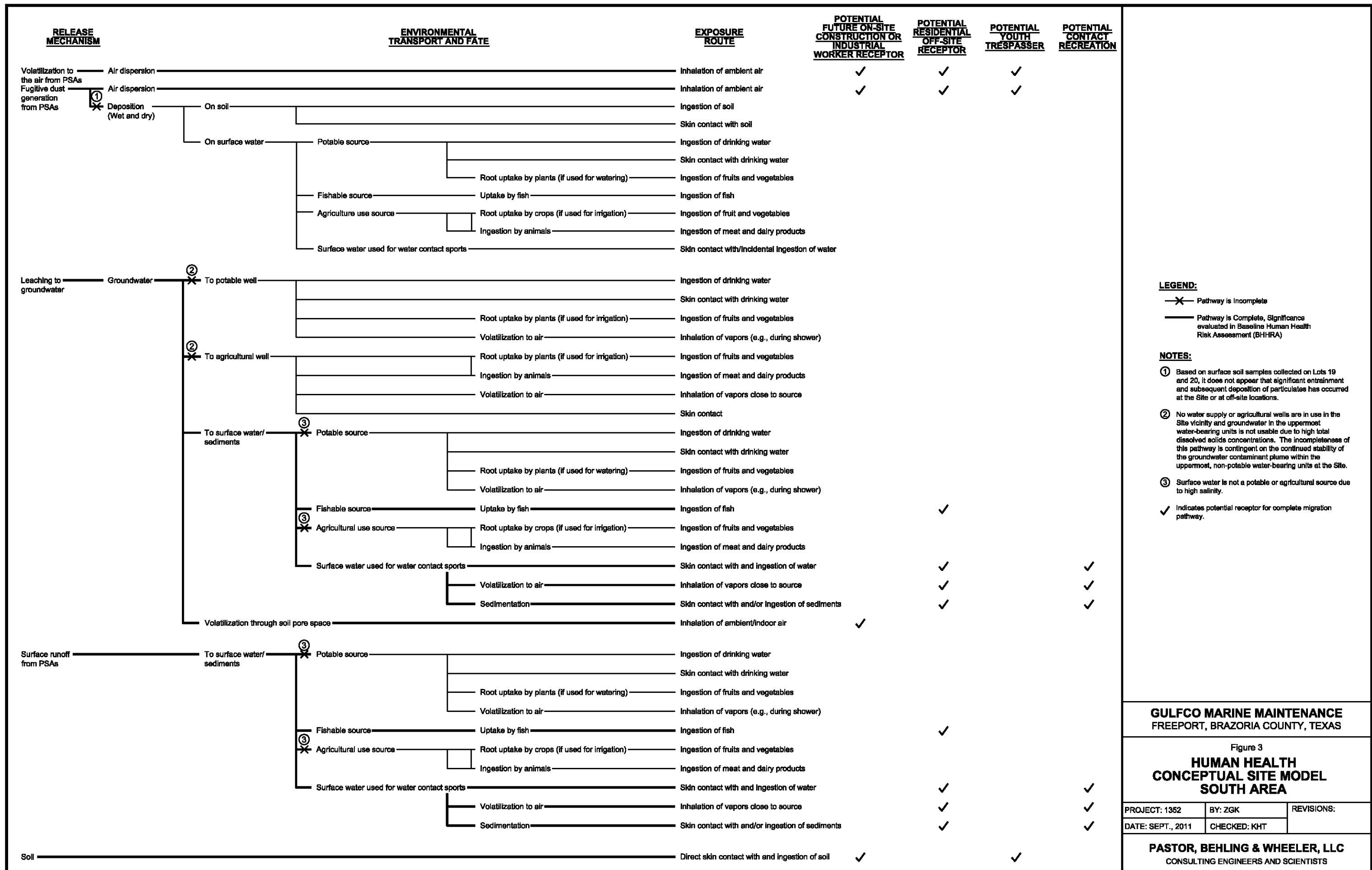
Source of photo: H-GAC, Texas aerial photograph, 2006.

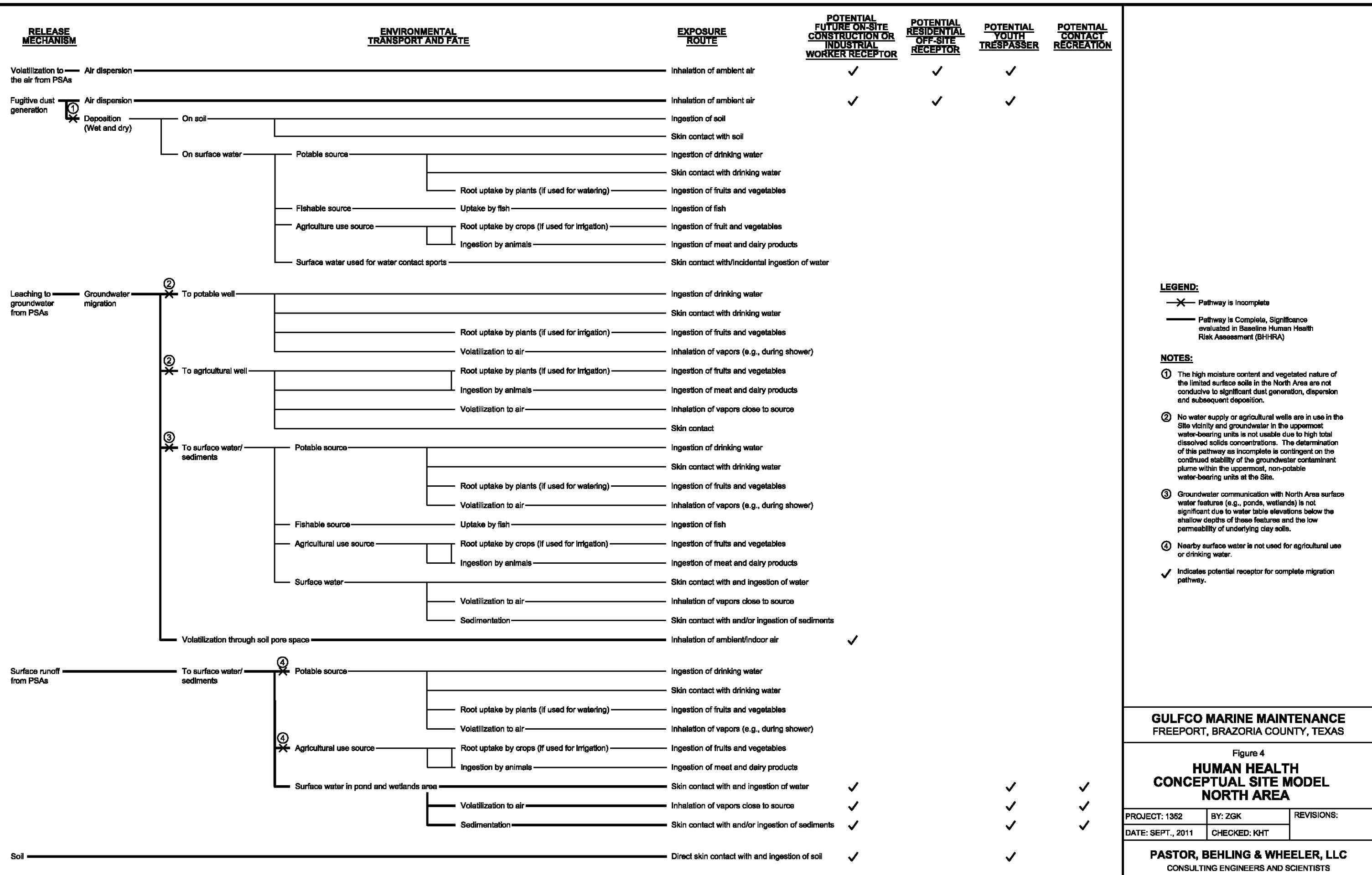
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**Figure 2
SITE MAP**

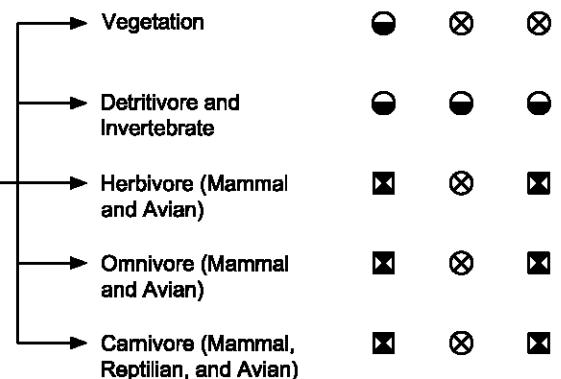
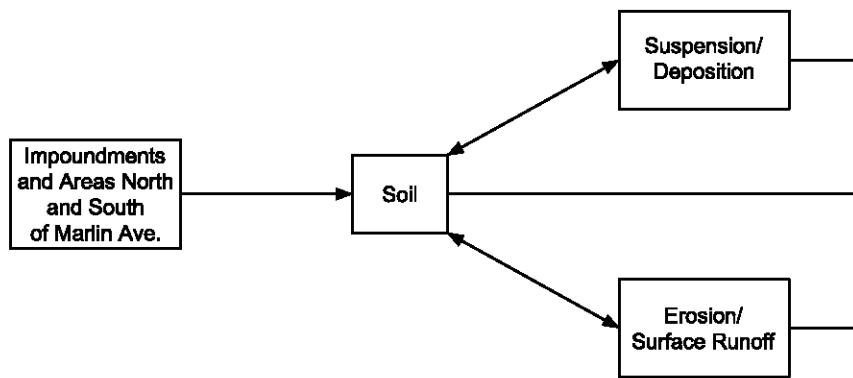
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<u>Primary Release Mechanism(s)</u>	<u>Secondary Source</u>	<u>Secondary Release Mechanism(s)</u>	<u>Exposure Medium</u>	<u>Potential Receptors</u>	<u>Potential Exposure Pathways</u>
Impoundments and Areas North and South of Marlin Ave.	Soil	Suspension/Deposition Erosion/Surface Runoff	On-Site Soil	Vegetation Detritivore and Invertebrate Herbivore (Mammal and Avian) Omnivore (Mammal and Avian) Carnivore (Mammal, Reptilian, and Avian)	Direct Contact and Ingestion of Soil Gill Uptake Ingestion, Food



LEGEND

- ☒ No acceptable risk (Final SLERA conclusion)
- ⊗ Pathway is not viable
- Pathway is potentially complete
- ☒ Pathway is incomplete
- For South Area soils, pathway is mitigated by lack of complete exposure pathways.
For North Area soils, pathway is potentially complete.

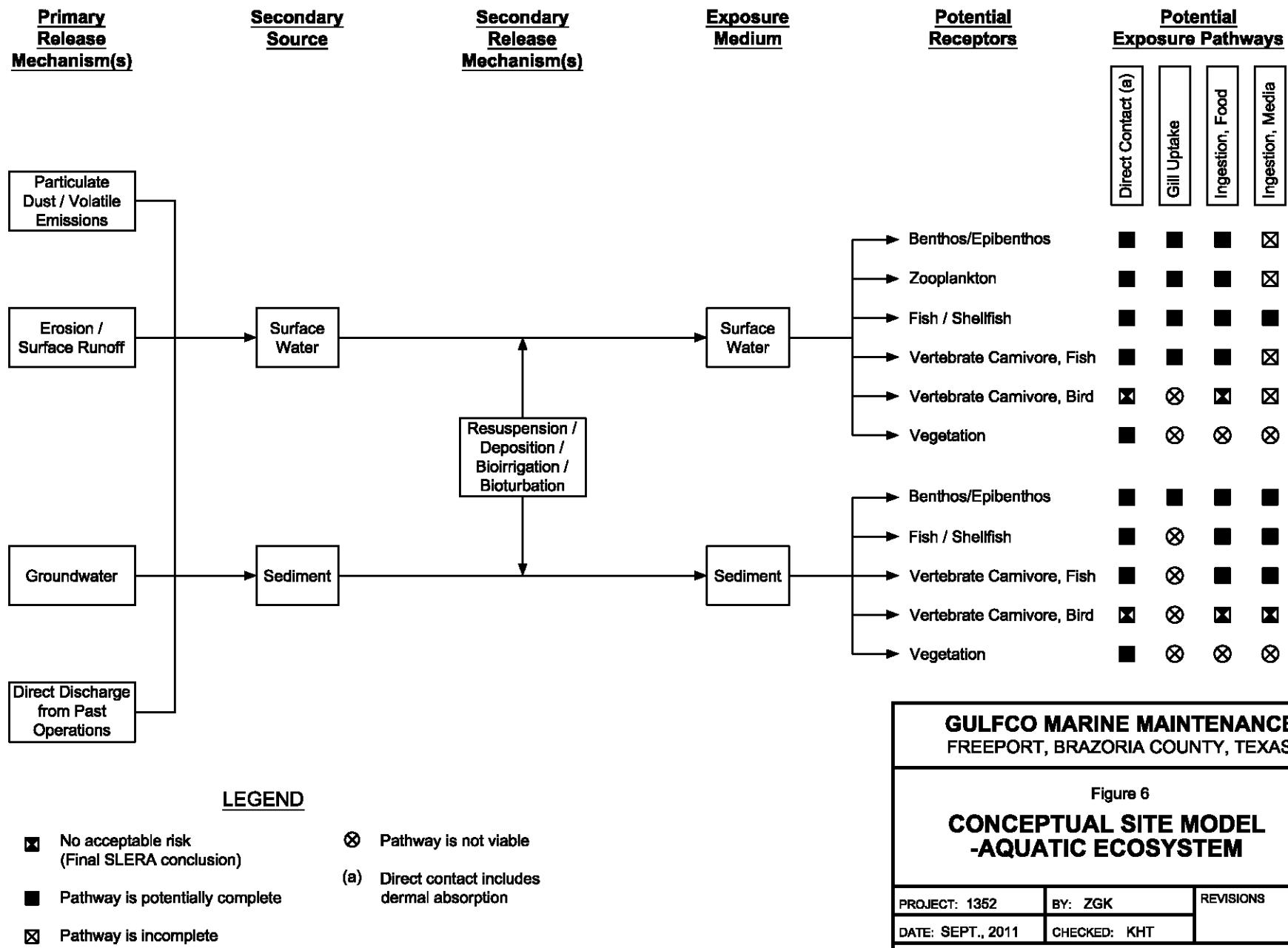
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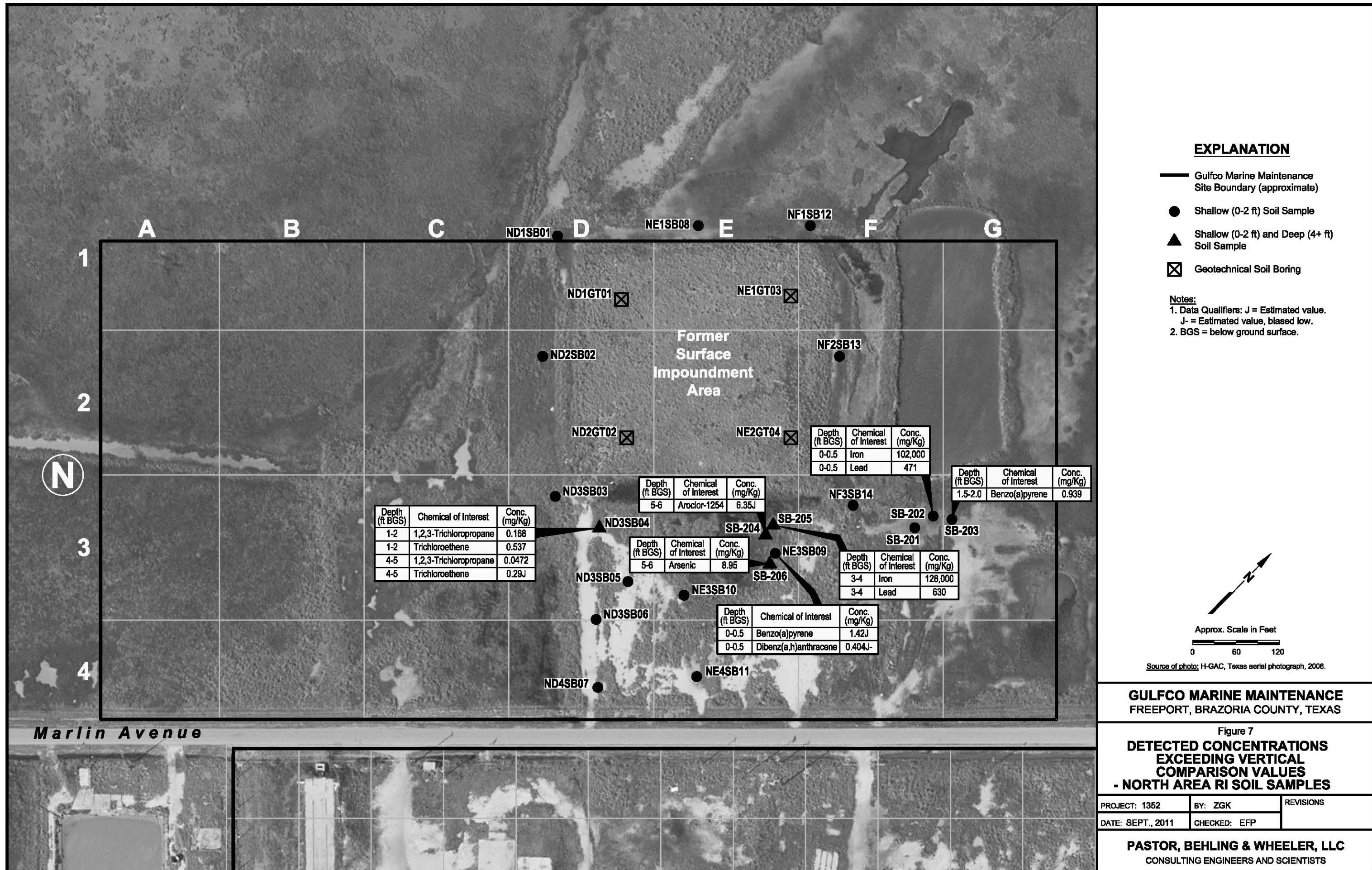
Figure 5

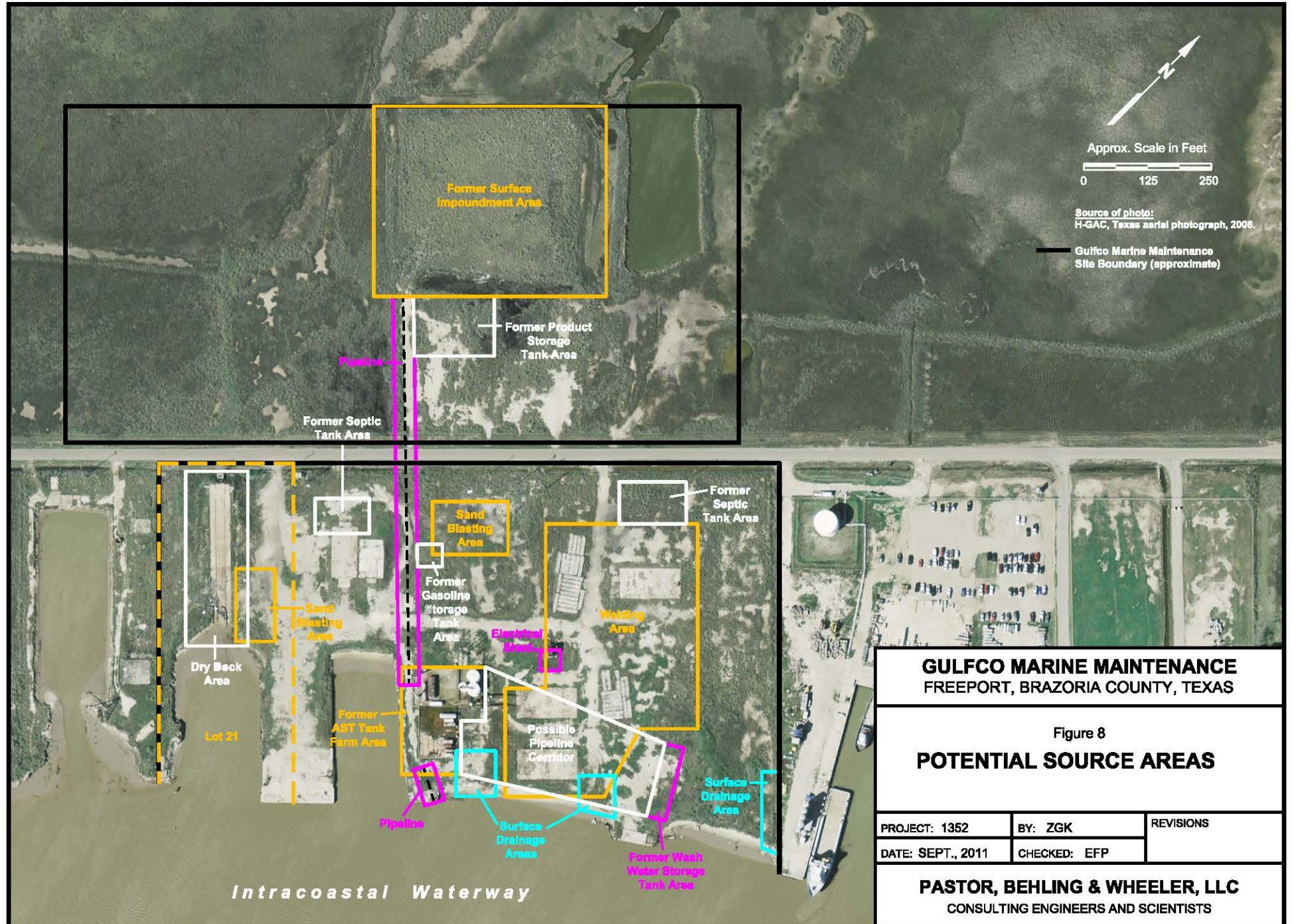
CONCEPTUAL SITE MODEL -TERRESTRIAL ECOSYSTEM

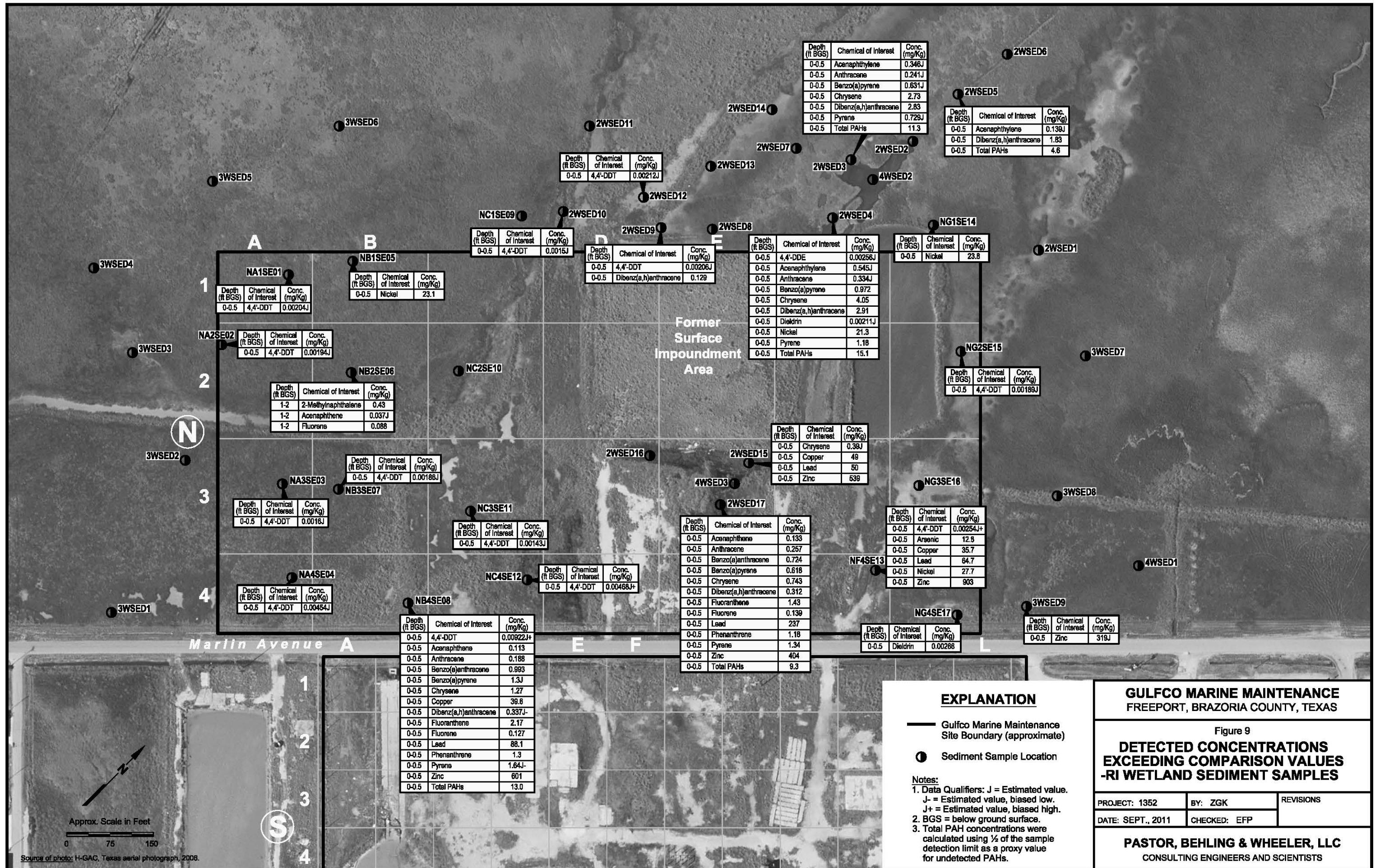
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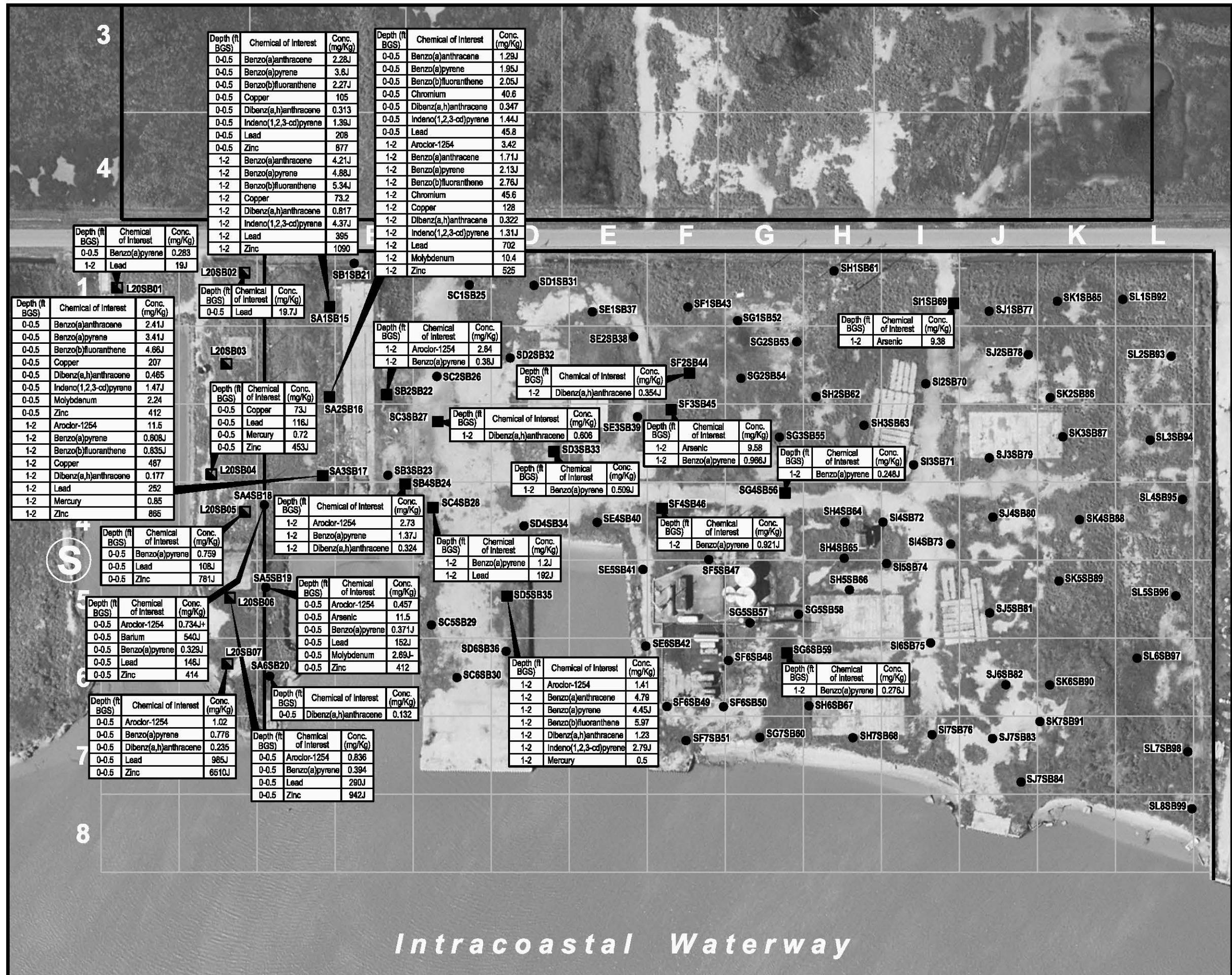












EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
 - Shallow Soil Sample (0-2 ft)
 - Shallow (0-2 ft) and Deep (4-5 ft) Soil Sample
 - Lot 20 Soil Sample

Note:
Data Qualifiers: J = Estimated value.
J- = Estimated value - biased low.
J+ = Estimated value - biased high.



Approx. Scale in Feet

Preprint submitted to JHEP

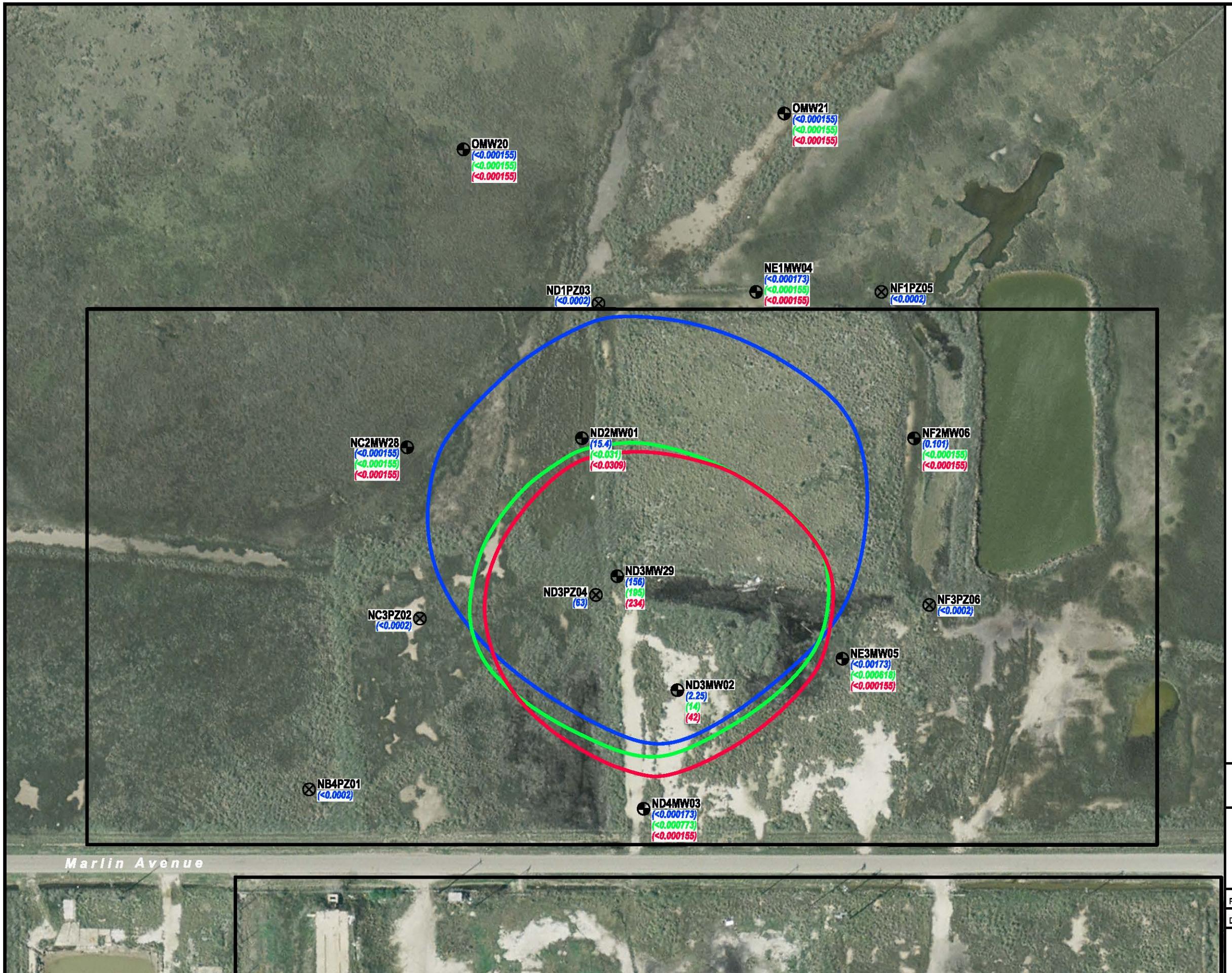
GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS

Figure 11

**DETECTED CONCENTRATIONS
EXCEEDING COMPARISON VALUES-
SOUTH AREA PHASE 1
PERIMETER B1 SOIL SAMPLES**

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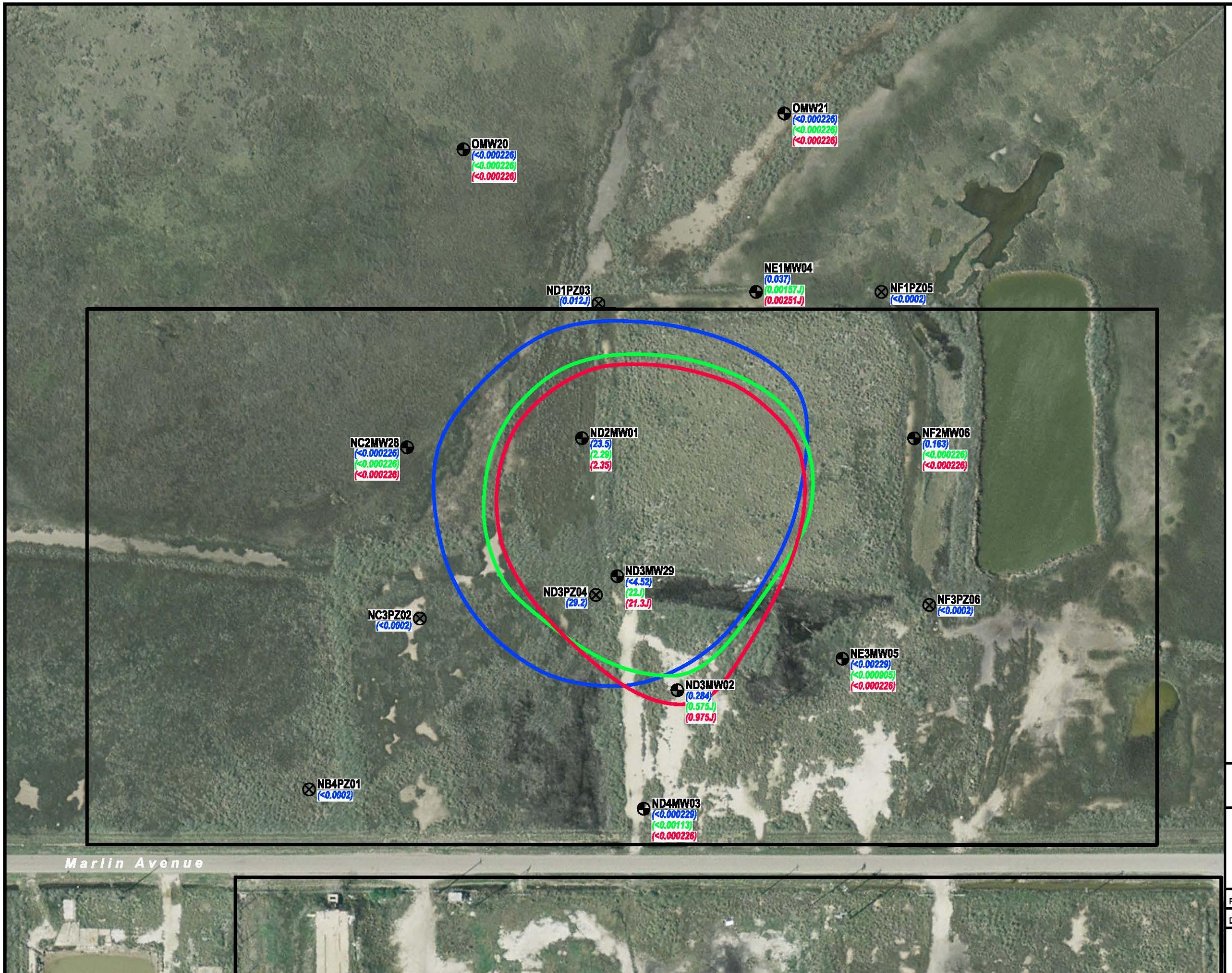
GULFCO MARINE MAINTENANCE FREEPORT, BRAZORIA COUNTY, TEXAS

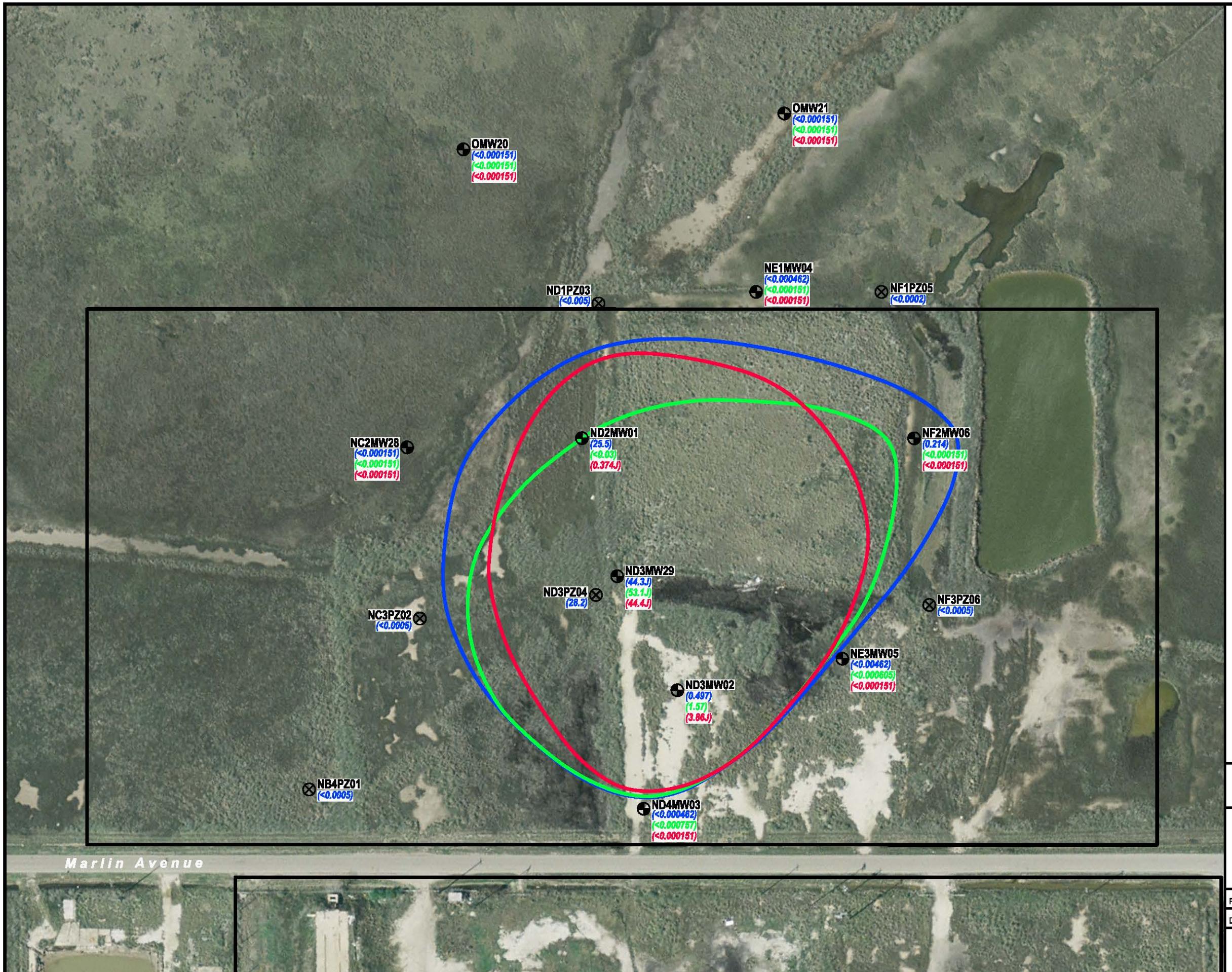
Figure 12

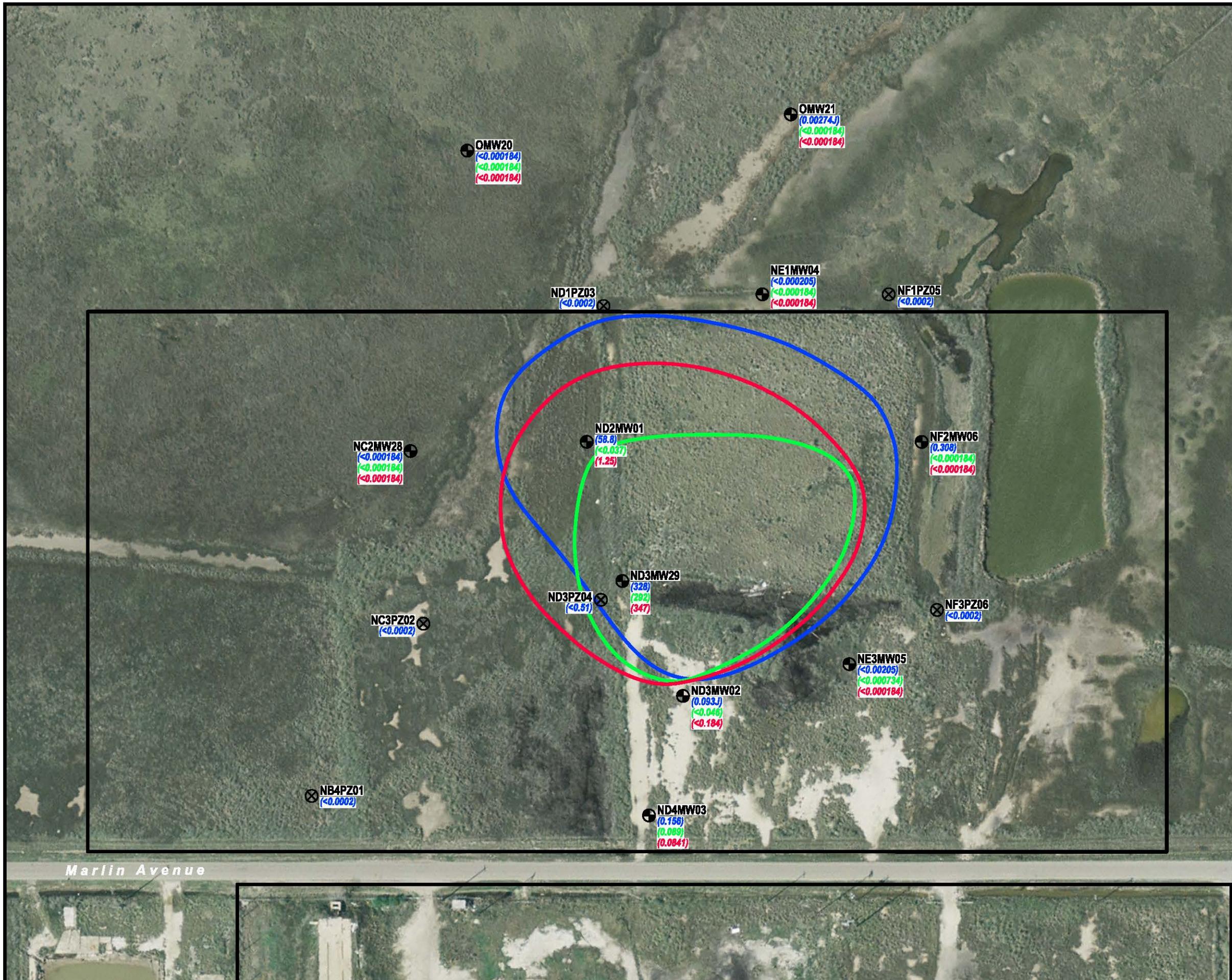
LATERAL EXTENT OF 1,1,1-TCA CONCENTRATIONS IN ZONE A JULY 2006 THROUGH JUNE 2008

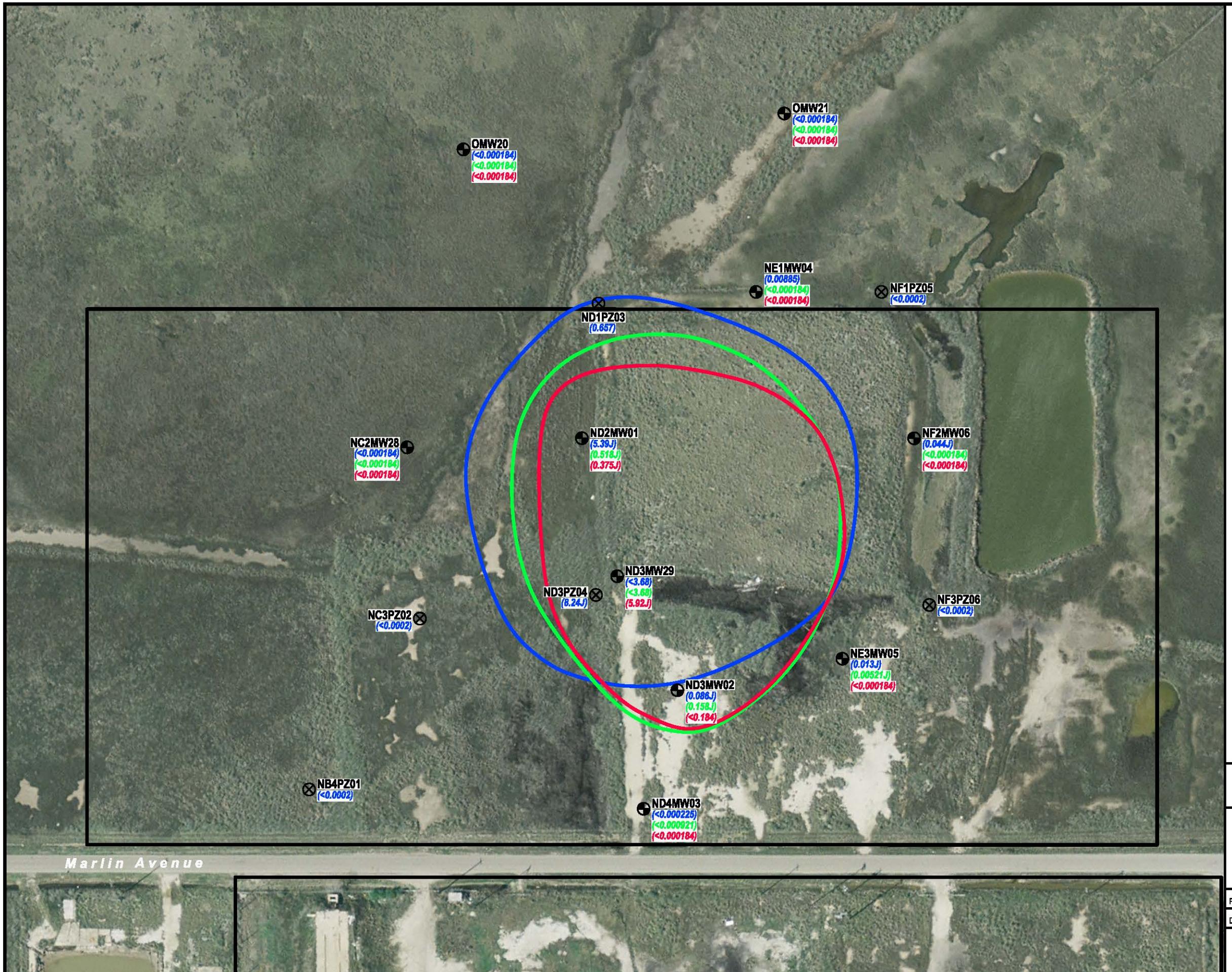
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EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- Monitoring Well Location - Zone A
- ⊗ Temporary Piezometer - Zone A
- (5.39J) Benzene Concentration (mg/L)
 (Blue value for initial sample collected at each location (July 2006 - June 2007)
 Green value for samples collected November 2007
 Red value for samples collected June 2008)
- Lateral Extent (defined by 0.1 mg/L concentration contour)
 Blue (July 2006 - June 2007)
 Green (November 2007)
 Red (June 2008)

Note:
Data Qualifier: J = Estimated value.



Approx. Scale in Feet
 0 60 120

Source of photo: H-GAC, Texas aerial photograph, 2006.

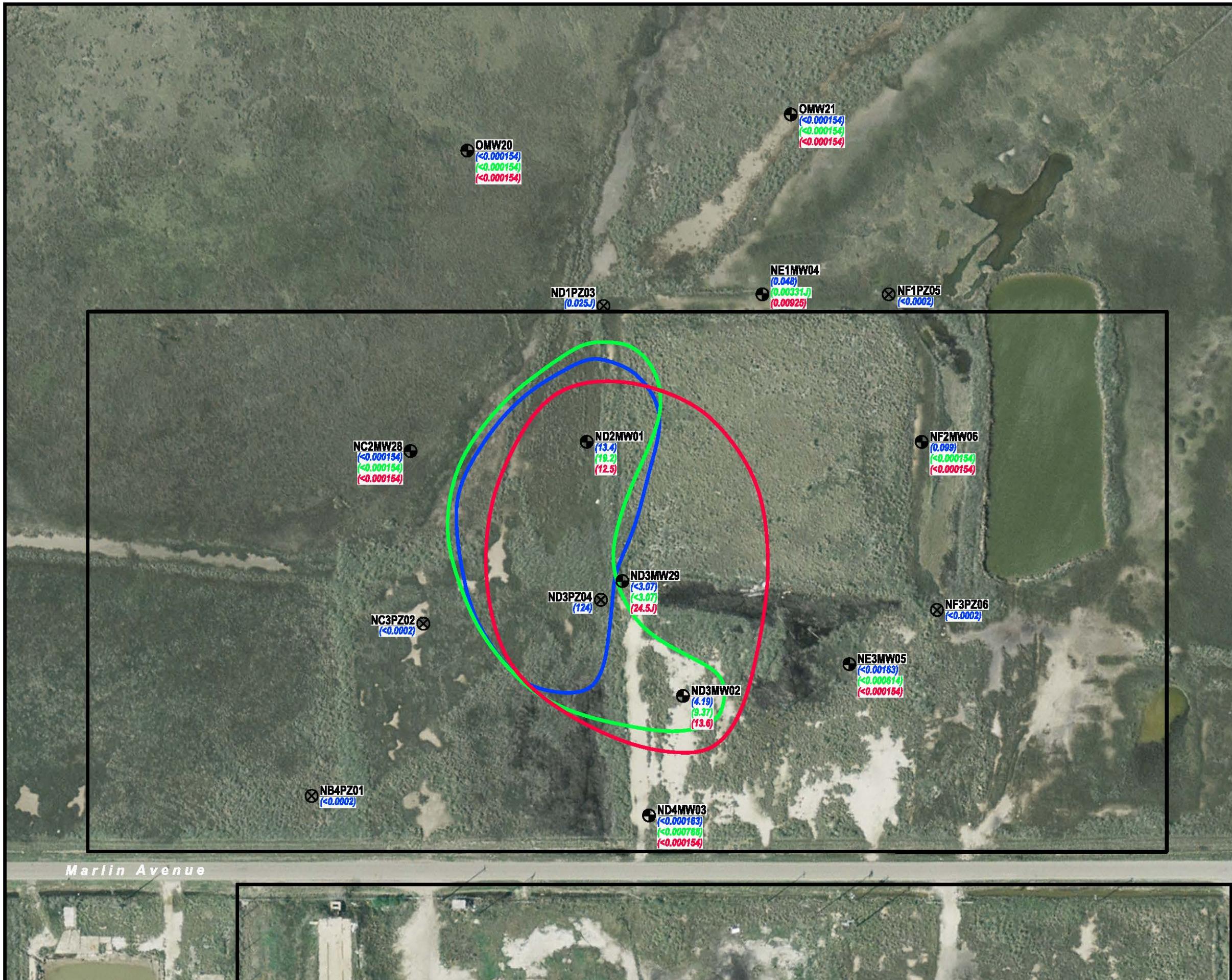
GULFCO MARINE MAINTENANCE FREEPORT, BRAZORIA COUNTY, TEXAS

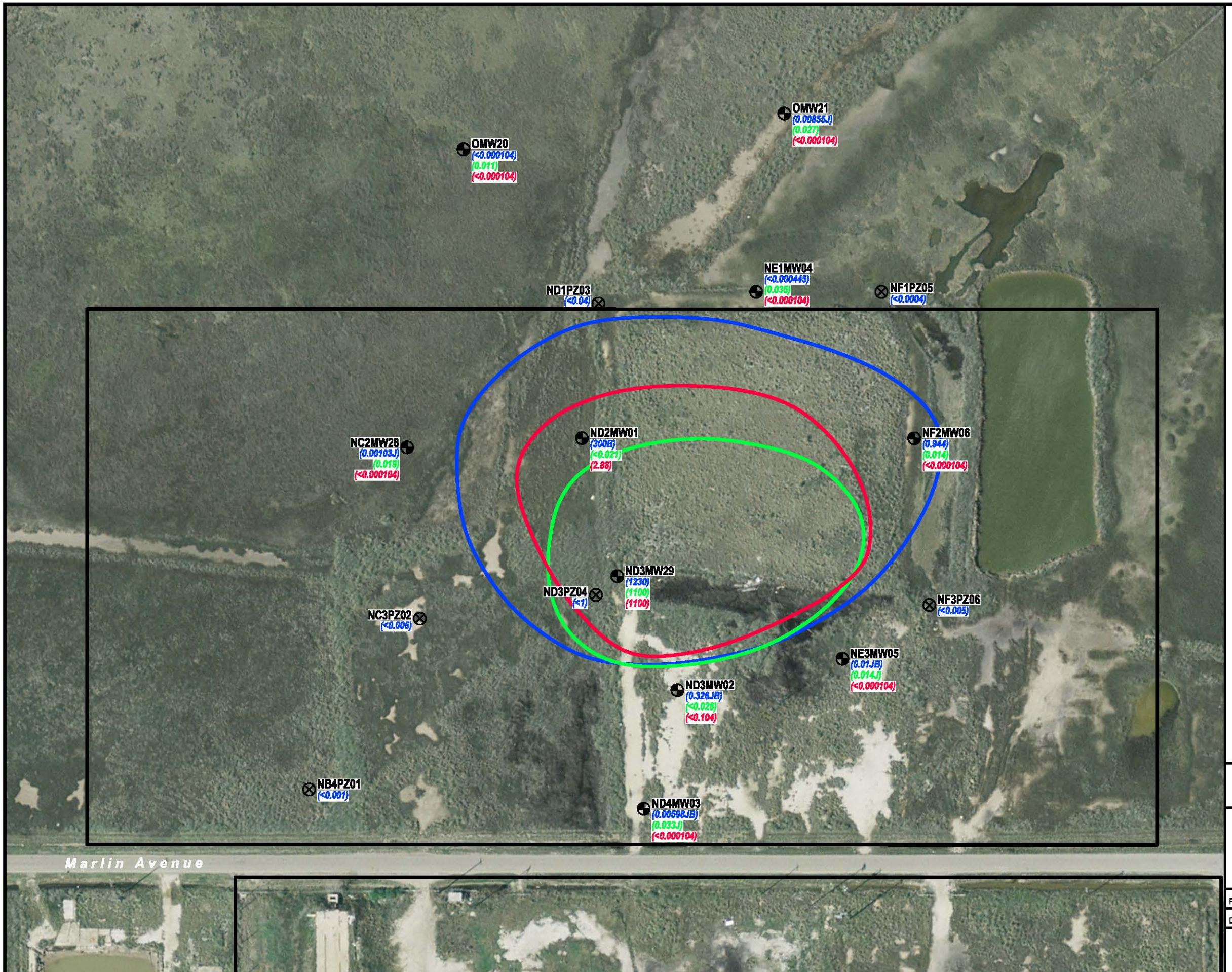
Figure 16

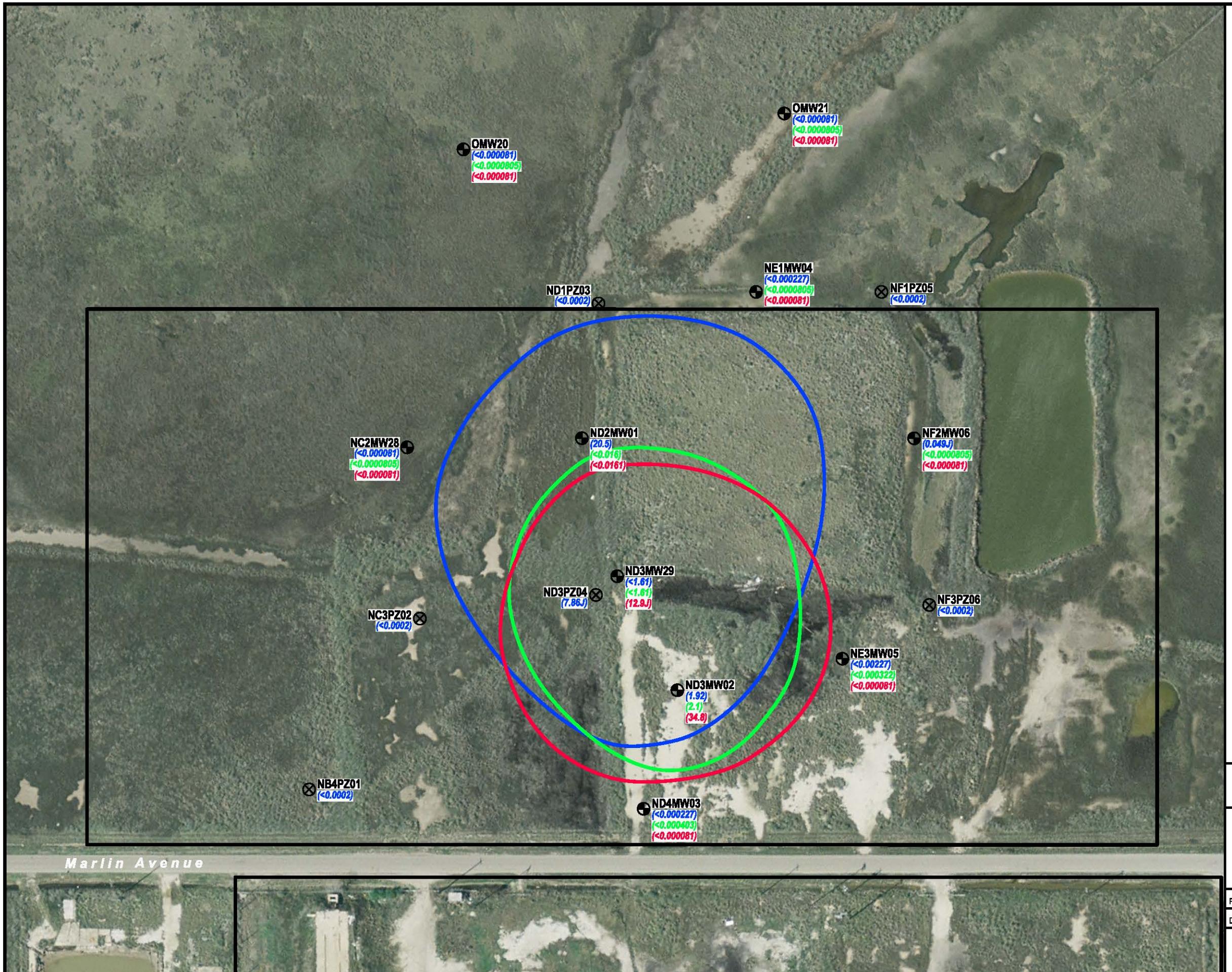
LATERAL EXTENT OF BENZENE CONCENTRATIONS IN ZONE A JULY 2006 THROUGH JUNE 2008

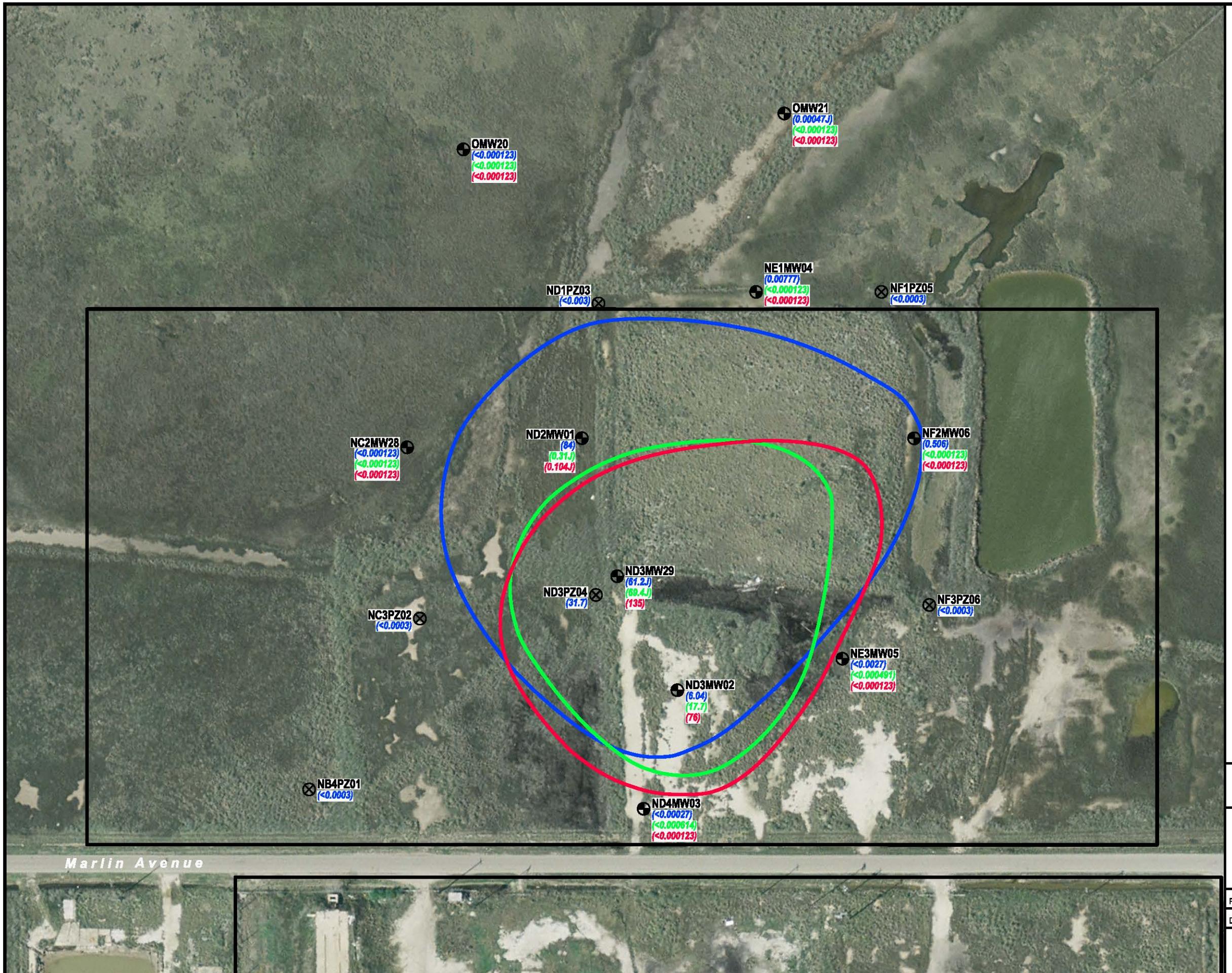
PROJECT: 1352	BY: ZGK	REVISIONS
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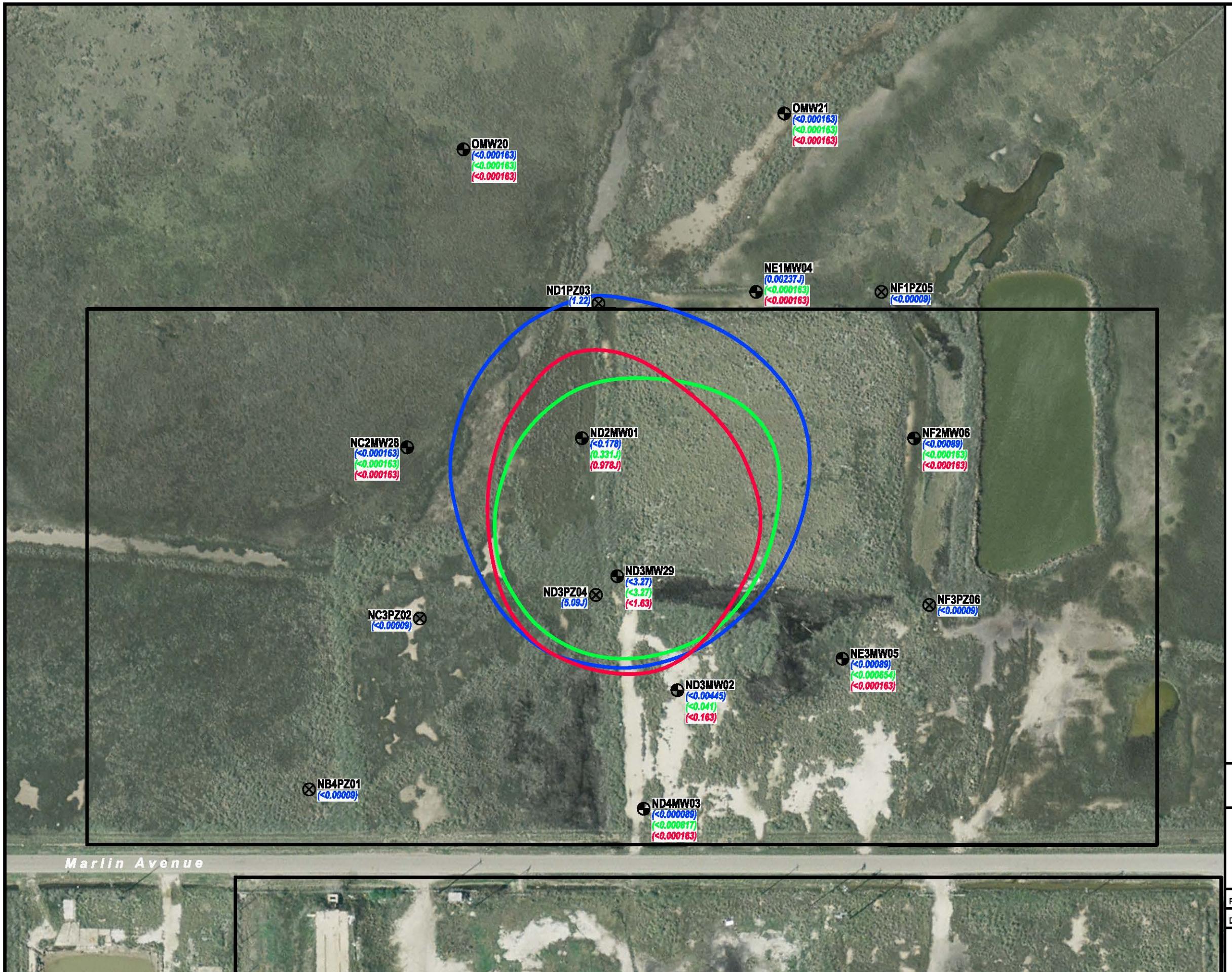
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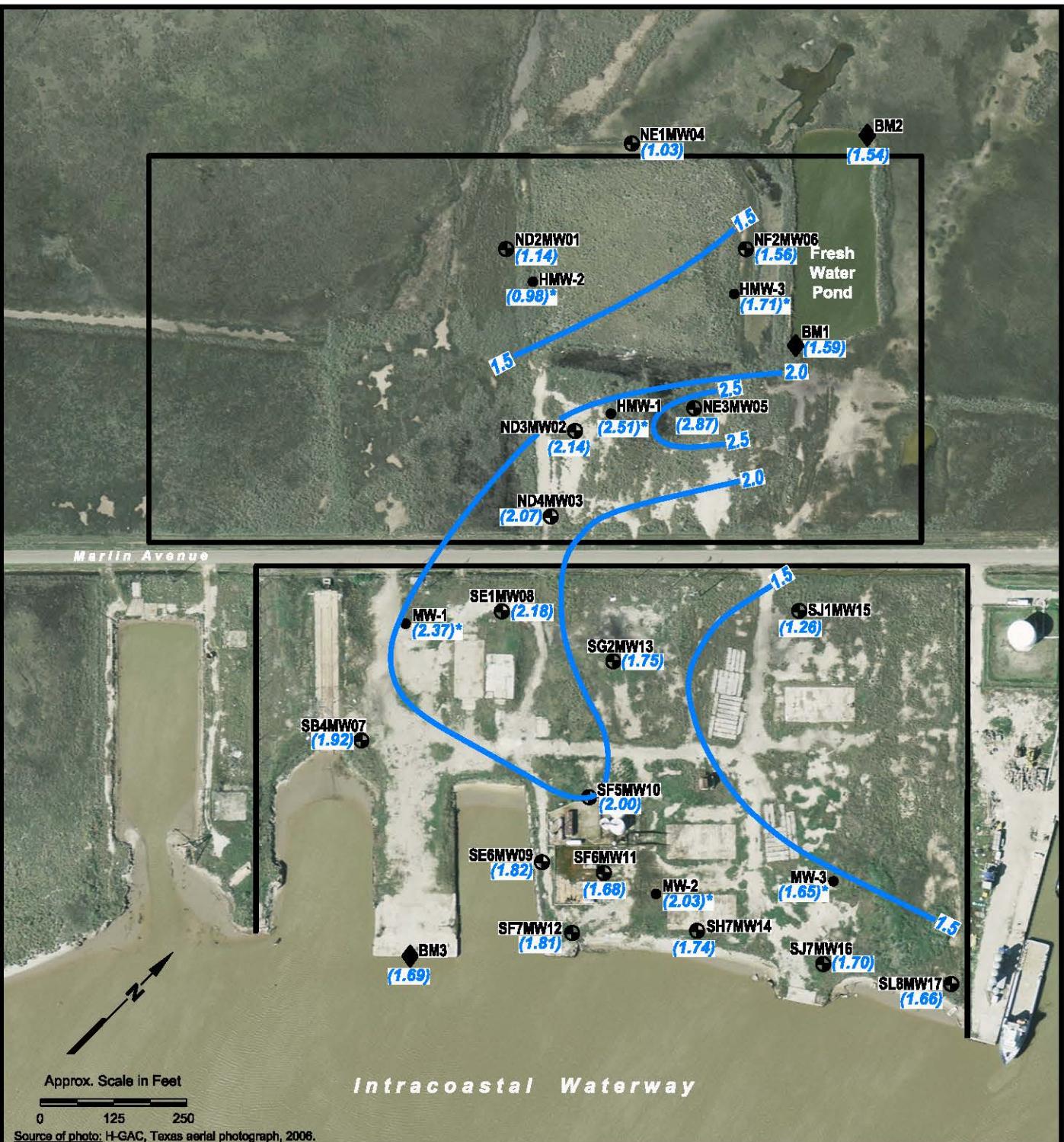












EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
 - Monitoring Well Location Zone A
 - Previous Monitoring Well Location
 - ◆ Staff Gauge
- (1.69) Water-Level Elevation (Ft AMSL) Measured 10/05/06
- * Elevation Not Used in Contouring
- 1.5 — Potentiometric Surface Contour (Ft AMSL) Contour Interval = 0.5 Ft

Note:
Previous monitoring well and staff gauge measurements included for reference only and not used to construct potentiometric surface contours.

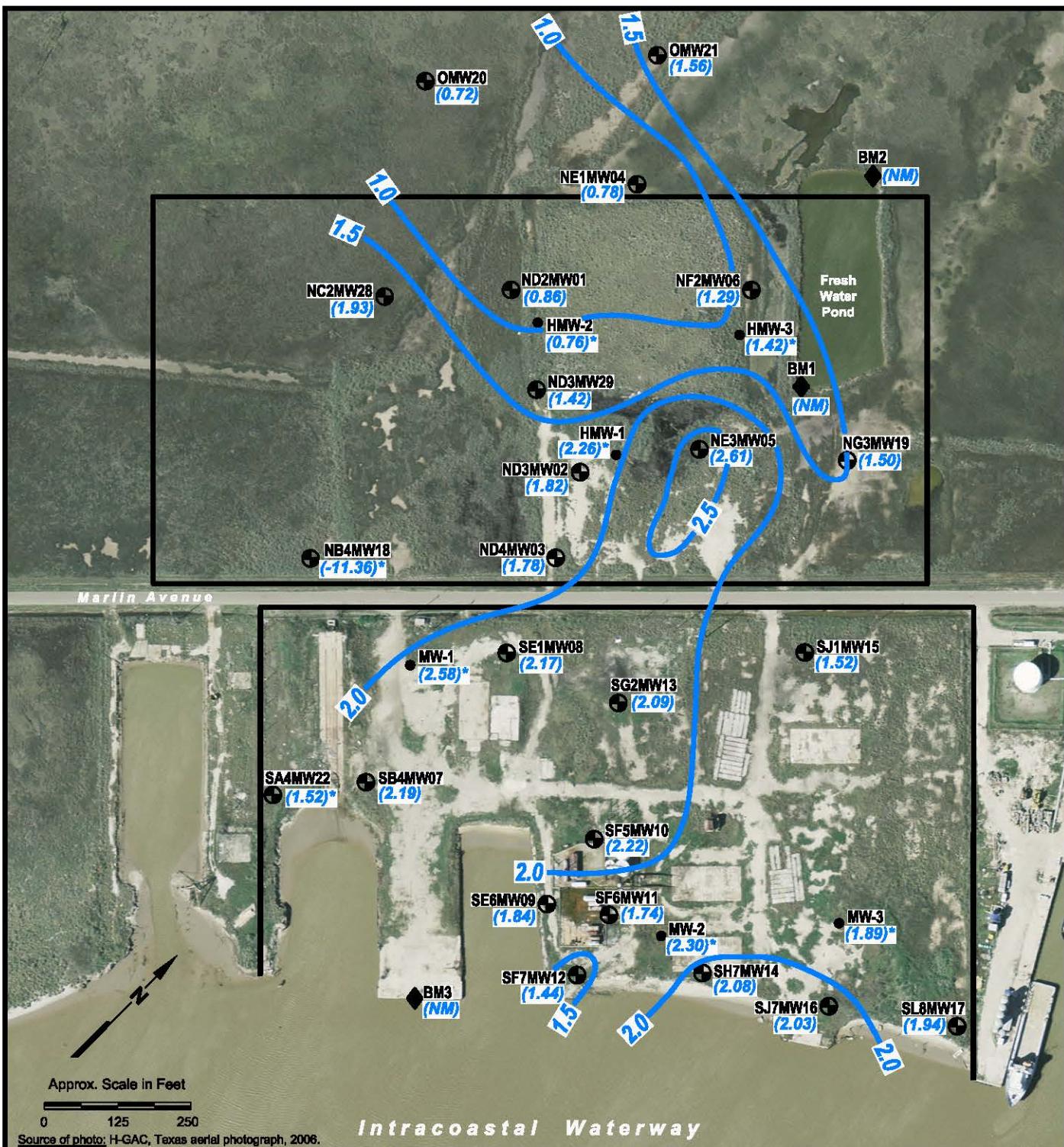
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Figure 22

ZONE A POTENTIOMETRIC SURFACE OCTOBER 5, 2006

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EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate) (1.44) Water-Level Elevation (Ft AMSL) Measured 06/06/07
- Monitoring Well Location Zone A (NM) Not Measured
- Previous Monitoring Well Location *
- ◆ Staff Gauge -1.5— Potentiometric Surface Contour (Ft AMSL) Contour Interval = 0.5 Ft

Notes:
Previous monitoring well measurements included for reference only and not used to construct potentiometric surface contours. Water-level elevation at NB4MW18 not used in contour due to insufficient recovery time from sampling. Staff gauge measurements not measured on this date.

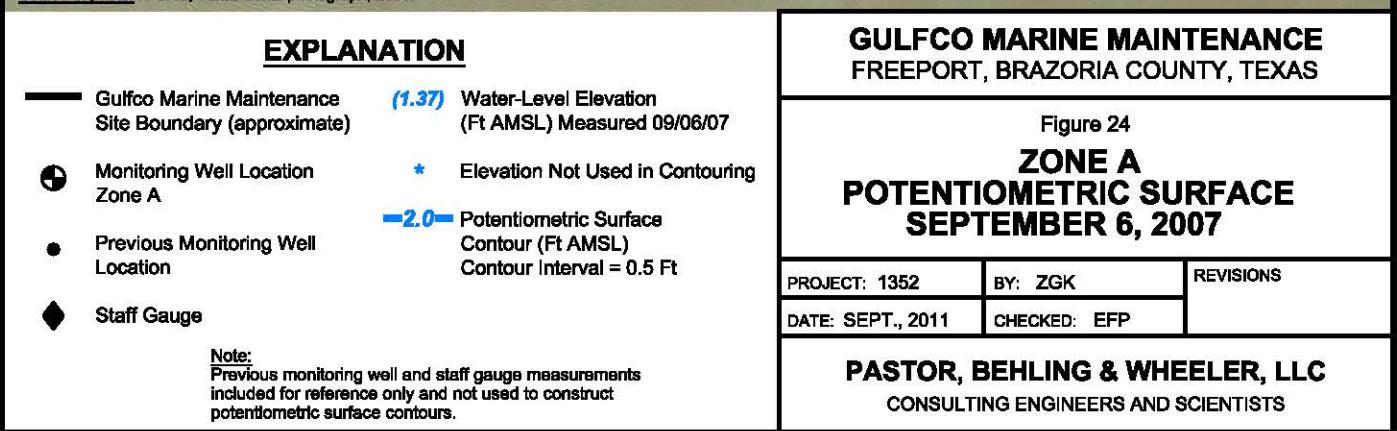
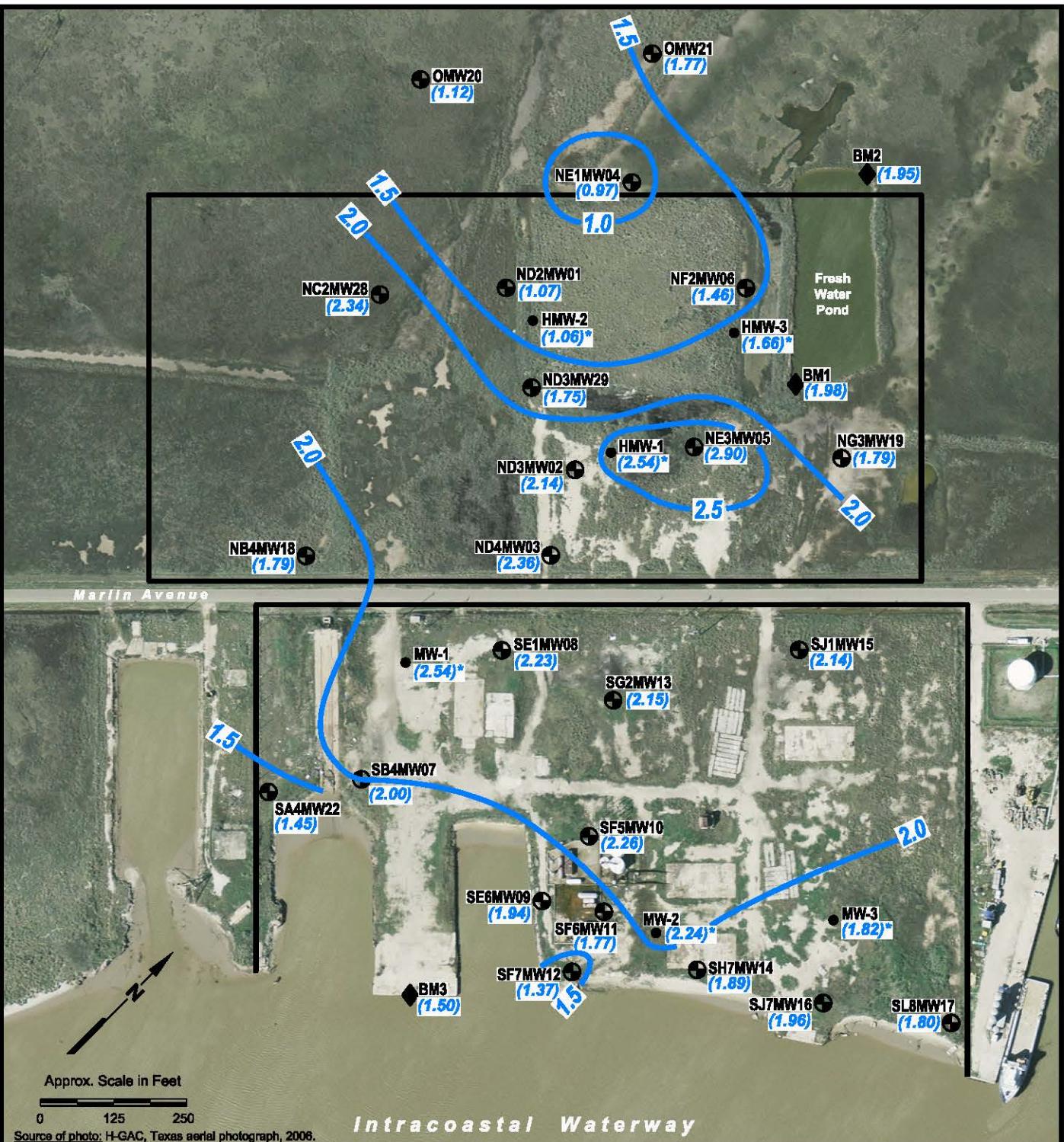
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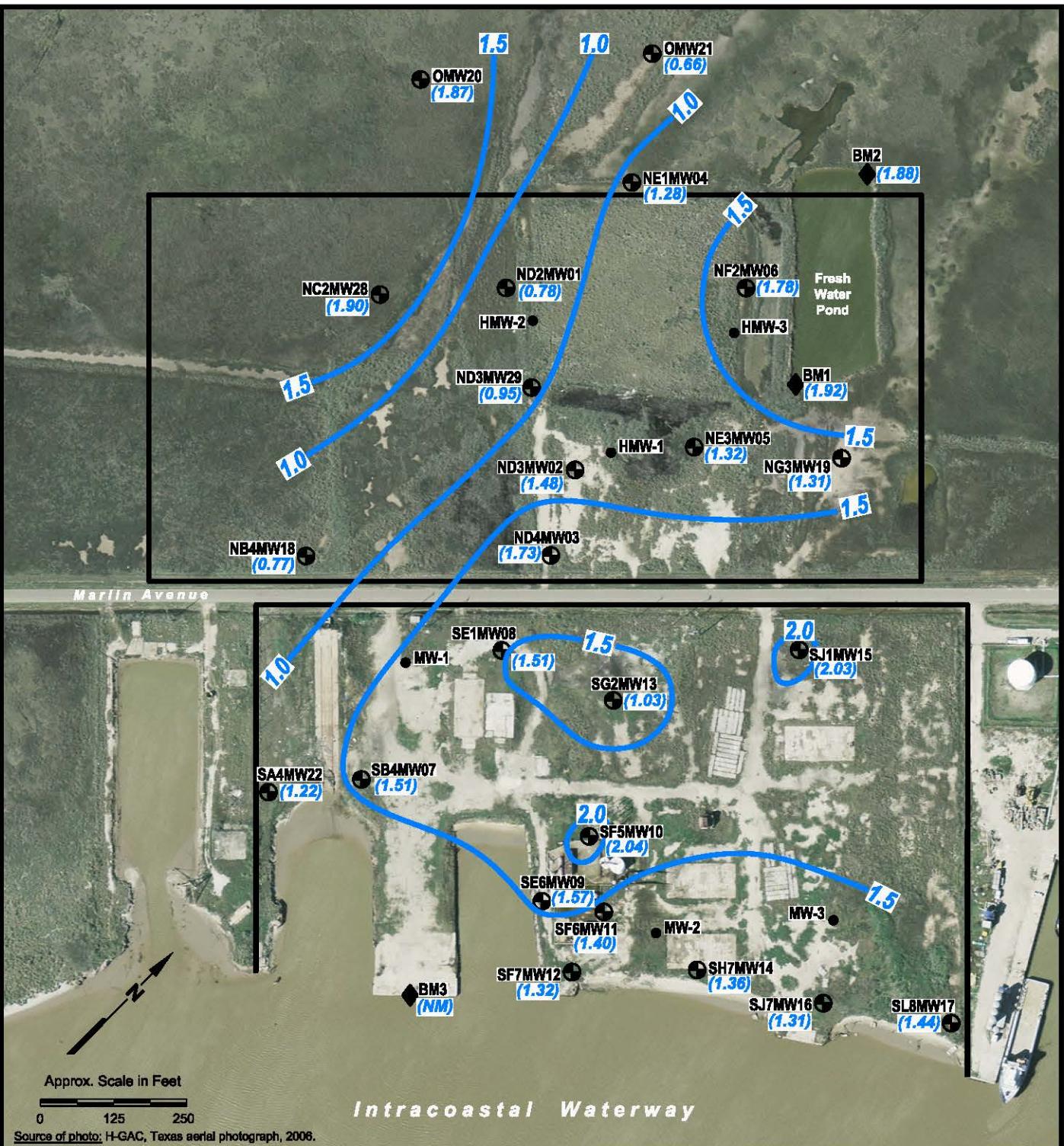
Figure 23

ZONE A POTENTIOMETRIC SURFACE JUNE 6, 2007

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EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate) (1.32) Water-Level Elevation (Ft AMSL) Measured 11/07/07
- (●) Monitoring Well Location Zone A (NM) Not Measured
- Previous Monitoring Well Location -1.5 Potentiometric Surface Contour (Ft AMSL) Contour Interval = 0.5 Ft
- ◆ Staff Gauge

Note:
Staff gauge measurements included for reference only and not used to construct potentiometric surface contours.

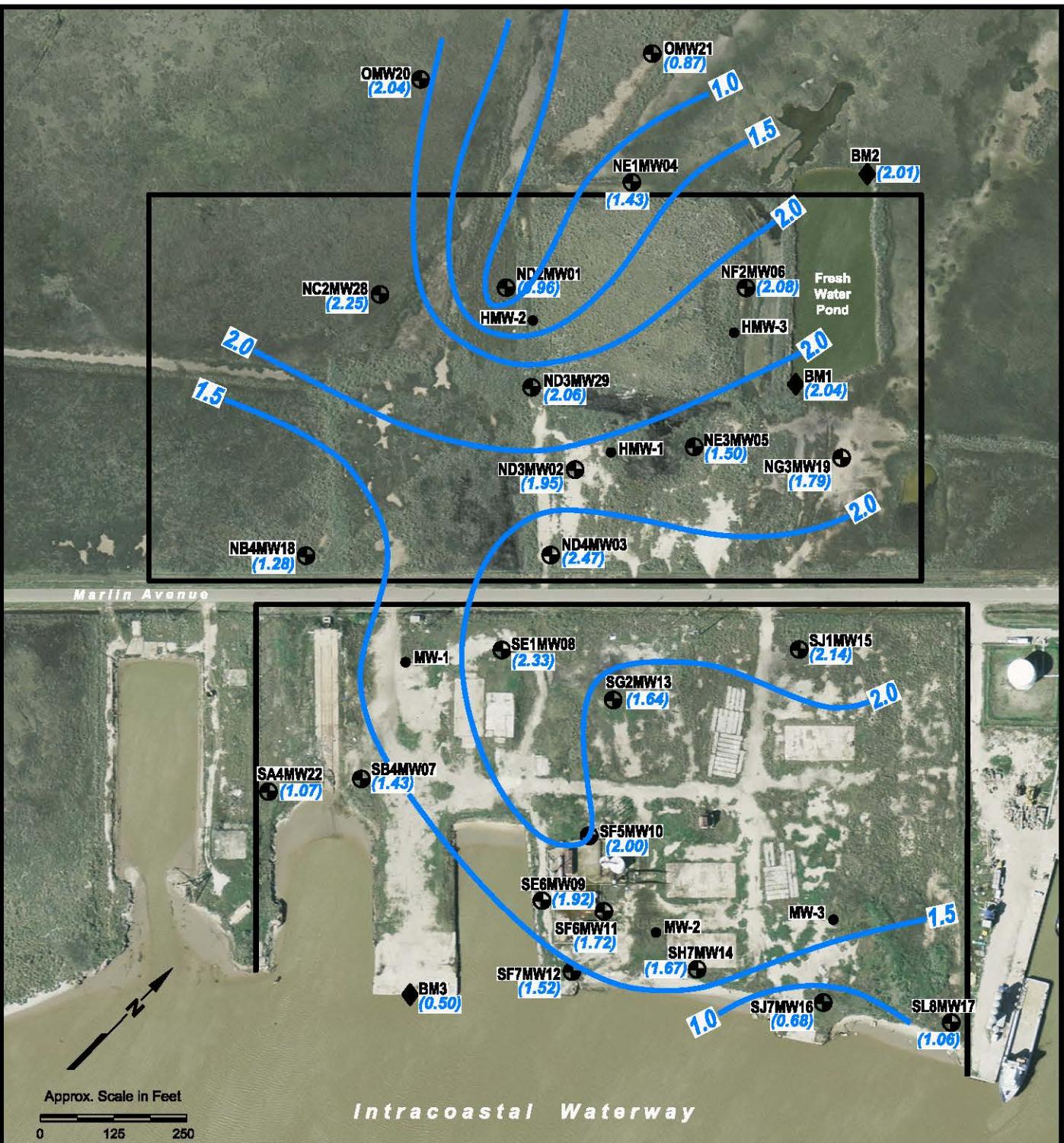
GULFCO MARINE MAINTENANCE FREEPORT, BRAZORIA COUNTY, TEXAS

Figure 25

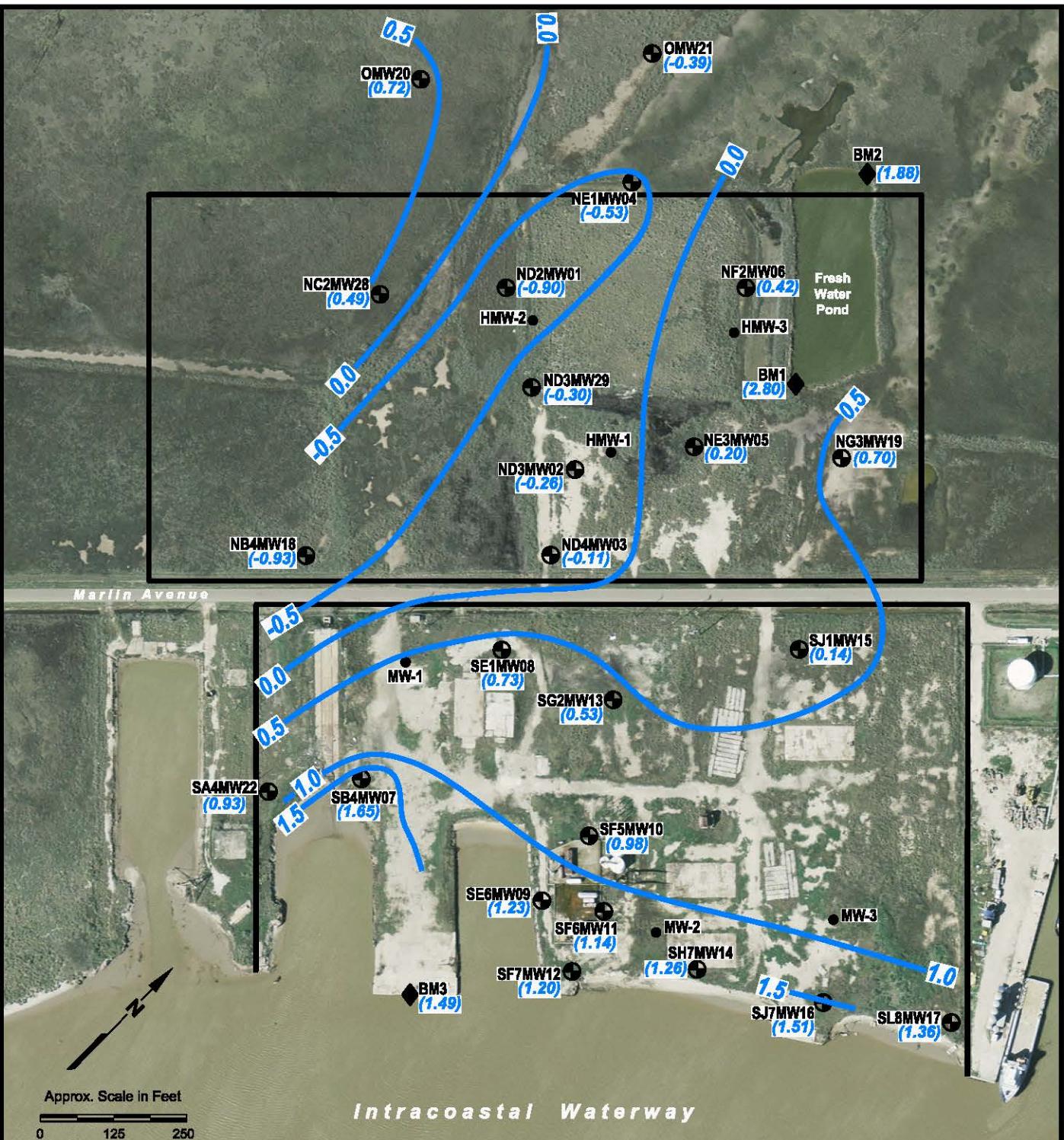
ZONE A POTENTIOMETRIC SURFACE NOVEMBER 7, 2007

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Source of photo: H-GAC, Texas aerial photograph, 2006.



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- ◆ Monitoring Well Location Zone A
- Previous Monitoring Well Location
- (1.52) Water-Level Elevation (Ft AMSL) Measured 06/17/08
- 1.5- Potentiometric Surface Contour (Ft AMSL)
Contour Interval = 0.5 Ft

Note:
Staff gauge measurements included for reference only and not used to construct potentiometric surface contours.

Source of photo: H-GAC, Texas aerial photograph, 2006.

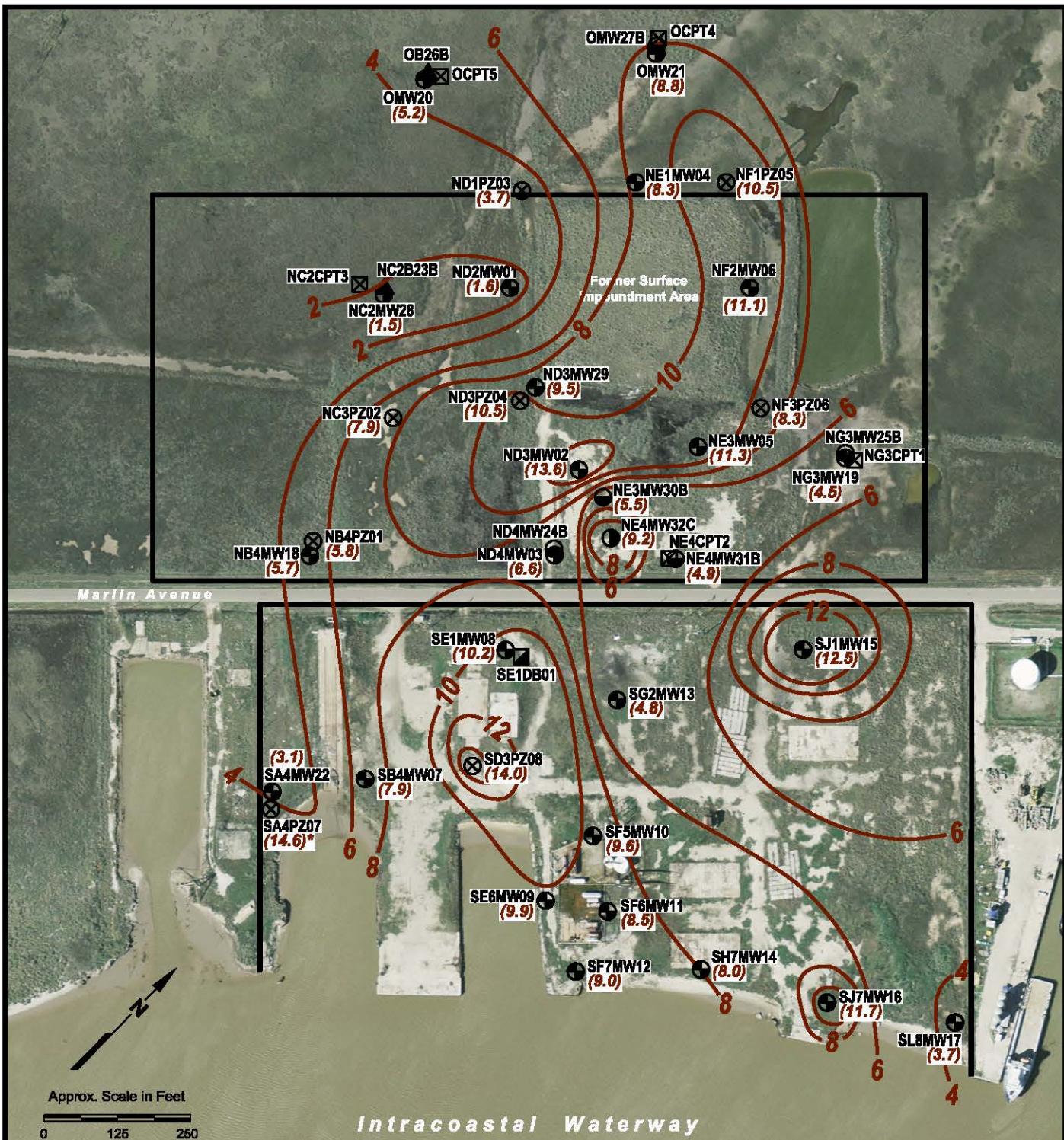
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Figure 27

ZONE A POTENTIOMETRIC SURFACE JUNE 17, 2008

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EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
 - Monitoring Well Location - Zone A
 - ⊗ Temporary Piezometer - Zone A
 - Monitoring Well Location - Zone B
 - Monitoring Well Location - Zone C
 - ☒ CPT Piezometer Location - Zone C
 - ▲ Soil Boring Location - Zone B
 - Deep Soil Boring Location
 - (6.6) Zone A Thickness (Ft)
 - 6 — Zone A Thickness Isopach (Contour Interval = 2 Ft)
- Note: *Not used for contouring.

Source of photo: H-GAC, Texas aerial photograph, 2006.

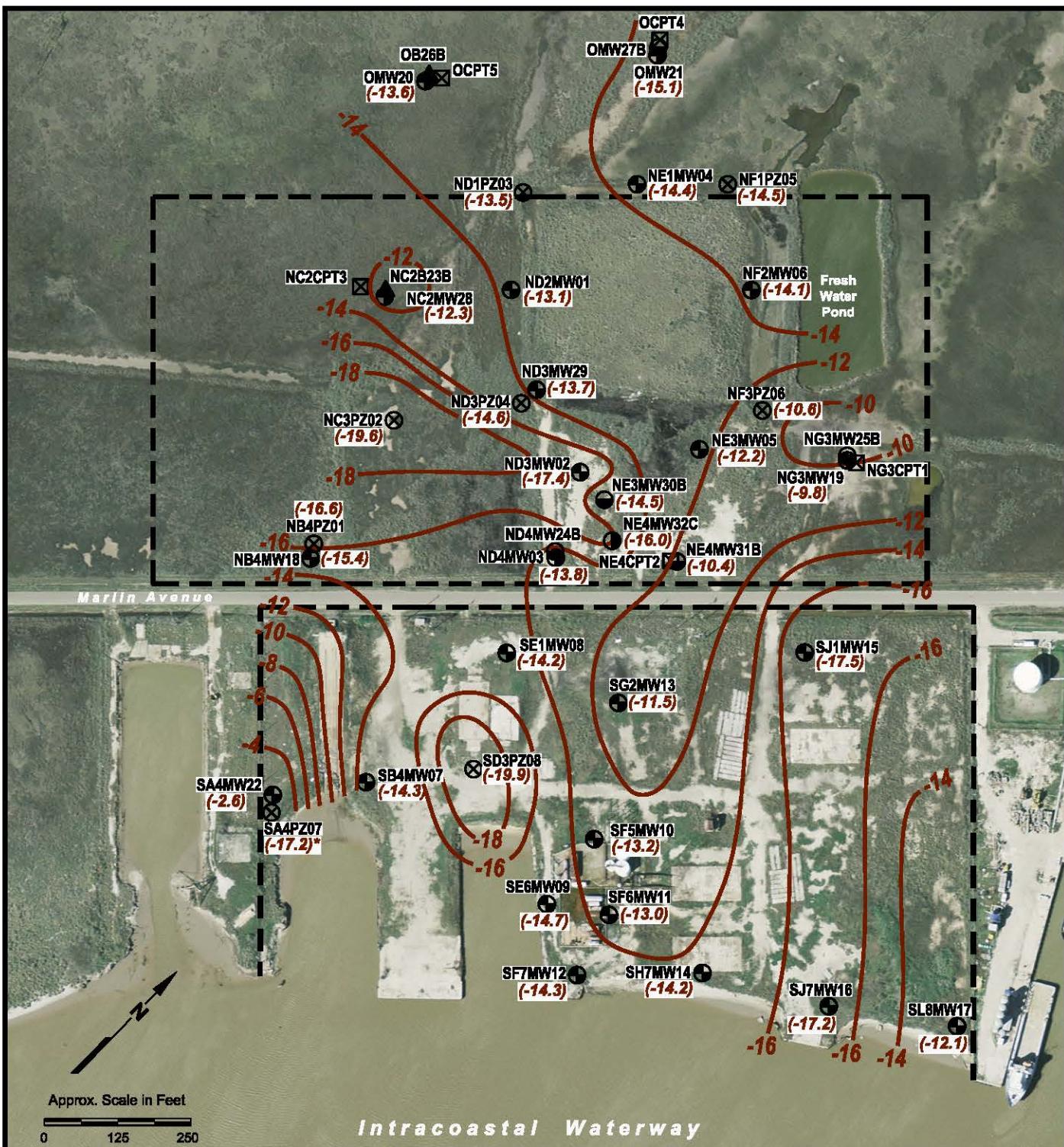
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Figure 28

ZONE A THICKNESS MAP

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EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- Monitoring Well Location - Zone C
- Monitoring Well Location - Zone A
- ⊗ Temporary Piezometer - Zone A
- Monitoring Well Location - Zone B
- ▲ Soil Boring Location - Zone B
- (-14.3) Elevation of Base of Zone A (Ft MSL)
- 14 — Base of Zone A Contour (Contour Interval = 2 Ft)

Note:

*Zone A base elevation at co-located monitoring well/temporary piezometer locations based on monitoring well boring due to superior sample obtained from larger diameter boring.

Source of photo: H-GAC, Texas aerial photograph, 2006.

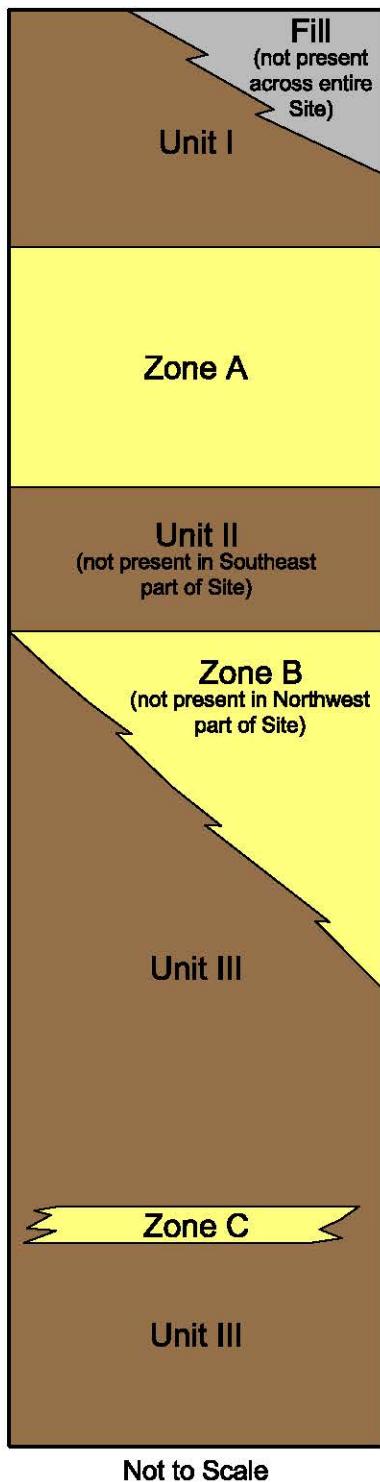
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Figure 29

STRUCTURE CONTOUR MAP BASE OF ZONE A

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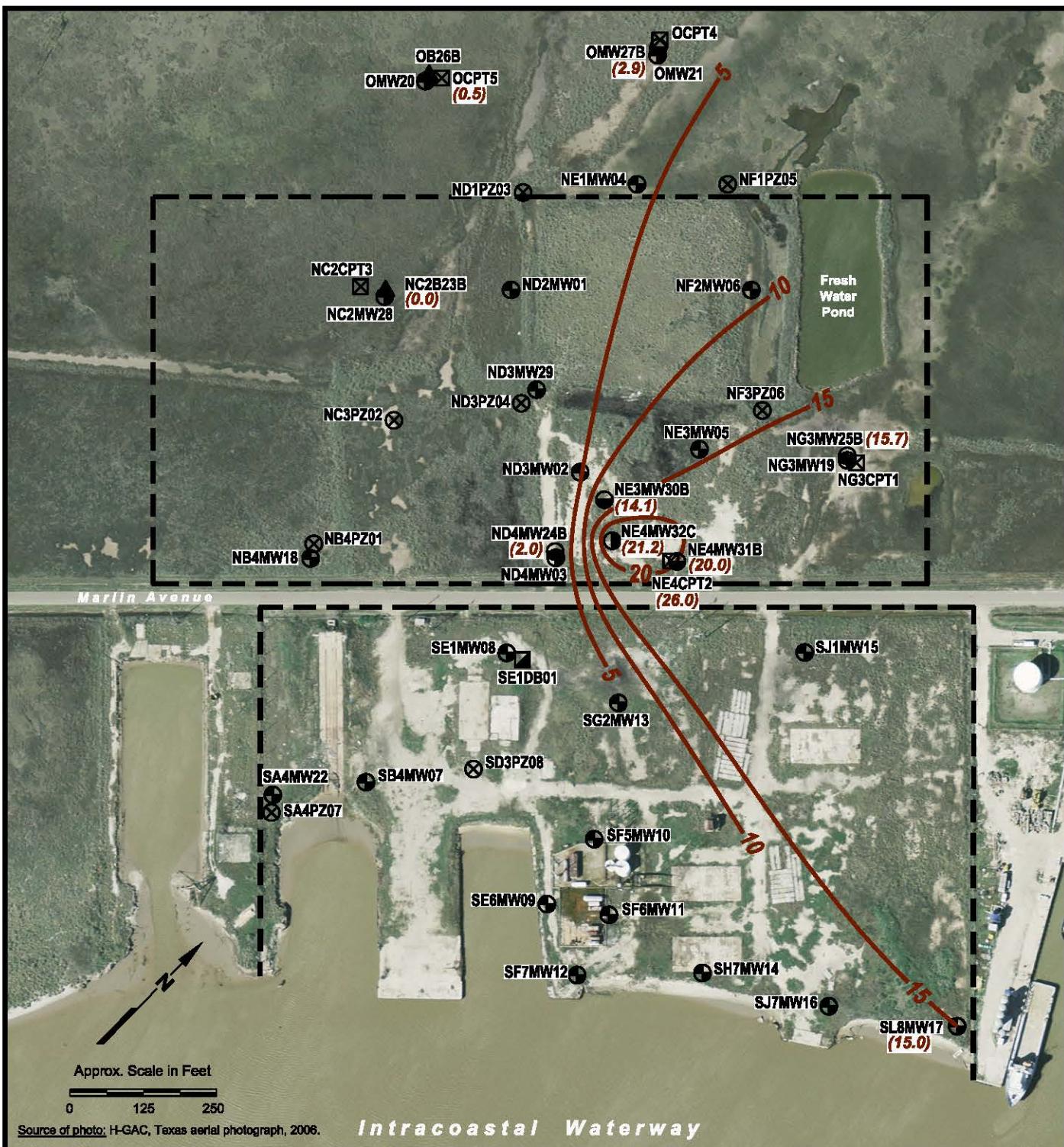
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EXPLANATION

[Grey Box]	FILL
[Brown Box]	CONFINING UNIT
[Yellow Box]	WATER-BEARING ZONE

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Figure 30 IDEALIZED SITE HYDROSTRATIGRAPHIC COLUMN		
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EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- Monitoring Well Location - Zone A
- ⊗ Temporary Piezometer - Zone A
- Monitoring Well Location - Zone B
- Monitoring Well Location - Zone C
- ☒ CPT Piezometer Location - Zone C
- ▲ Soil Boring Location - Zone B
- Deep Soil Boring Location
- (15.7) Zone B Thickness (Ft)
- 5 — Zone B Thickness Isopach (Contour Interval = 5 Ft)

Note:
* Separating clay between Zone A and Zone B is not present at SL8MW17. Zone B thickness at this location is based on the thickness of the SP sand.

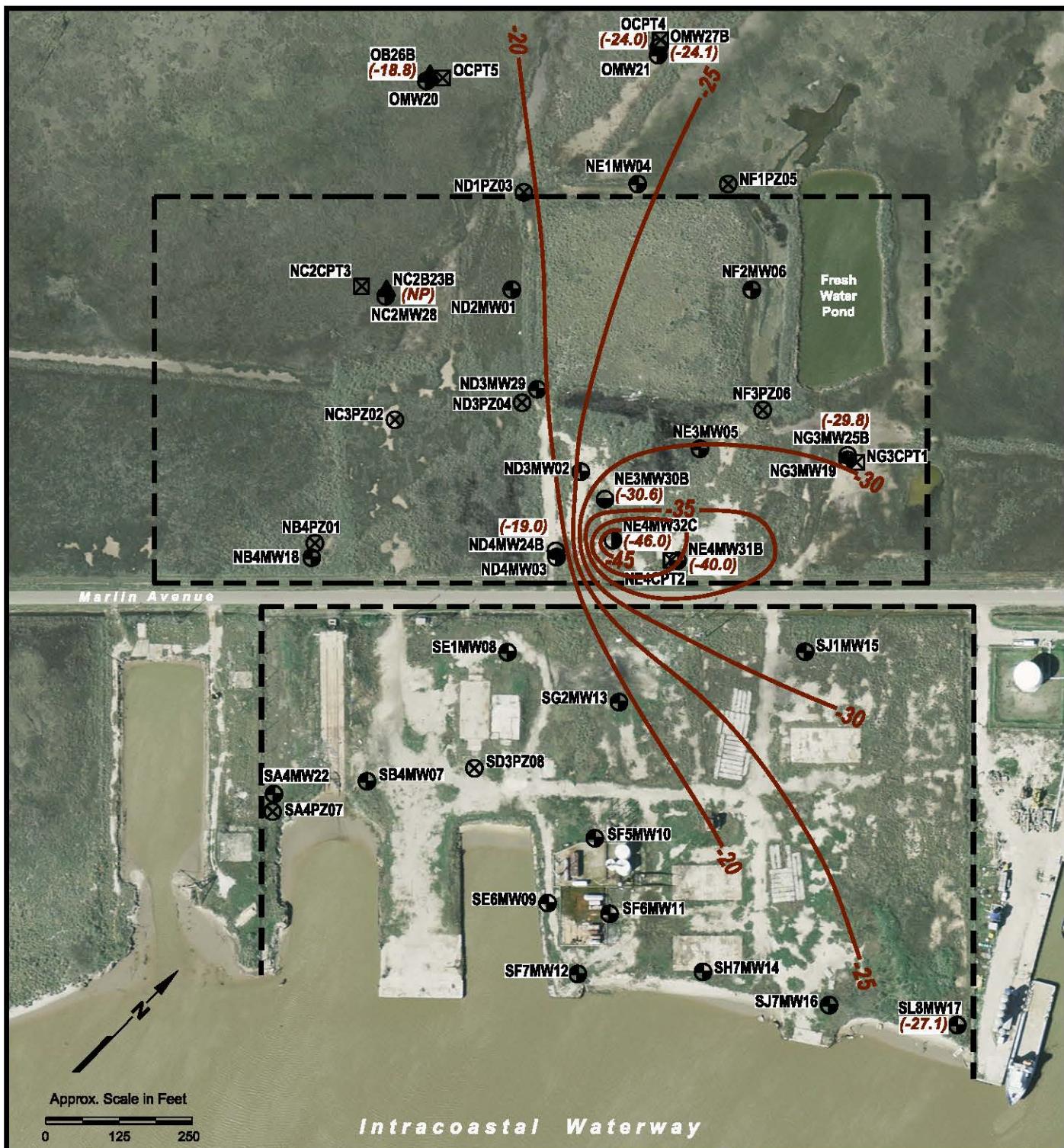
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Figure 31

ZONE B THICKNESS MAP

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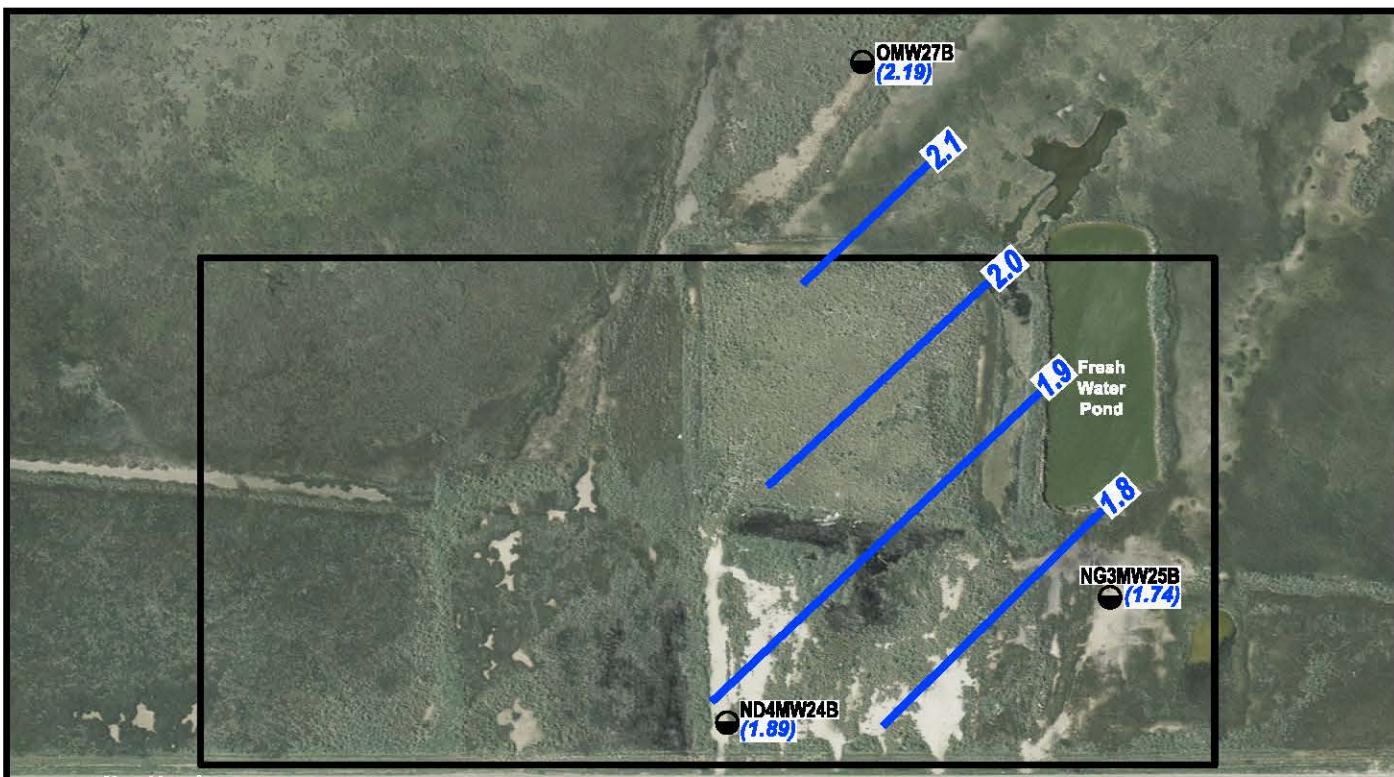
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Figure 32

STRUCTURE CONTOUR MAP BASE OF ZONE B

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EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- (1.89) Water-Level Elevation (Ft AMSL) Measured 06/06/07
- Monitoring Well Location - Zone B
- 2.0 — Potentiometric Surface Contour (Ft AMSL)
Contour Interval = 0.1 Ft

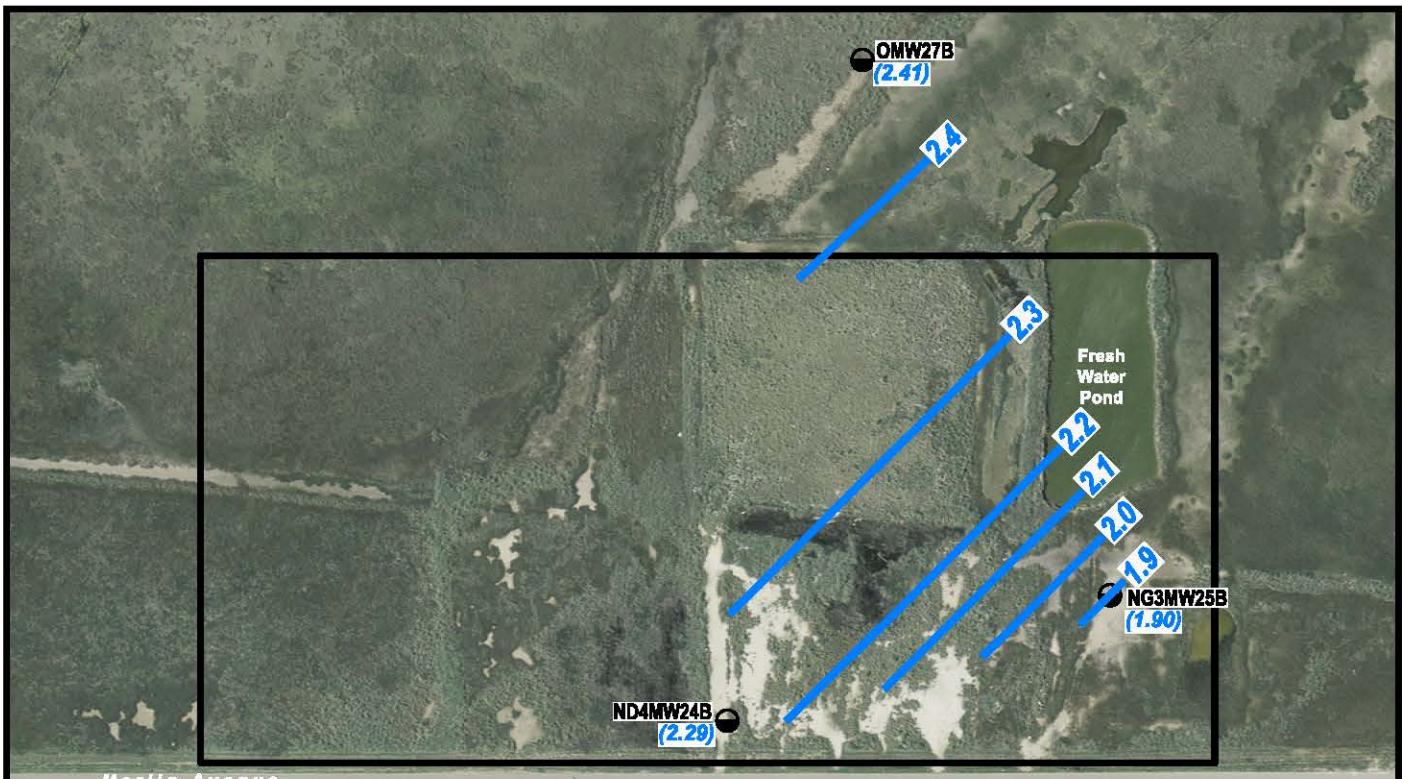
Source of photo: H-GAC, Texas aerial photograph, 2006.

**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 33
**ZONE B
POTENTIOMETRIC SURFACE
JUNE 6, 2007**

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EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- Monitoring Well Location - Zone B
- (2.29) Water-Level Elevation (Ft AMSL) Measured 09/06/07
- 2.0 — Potentiometric Surface Contour (Ft AMSL) Contour Interval = 0.1 Ft

Source of photo: H-GAC, Texas aerial photograph, 2006.

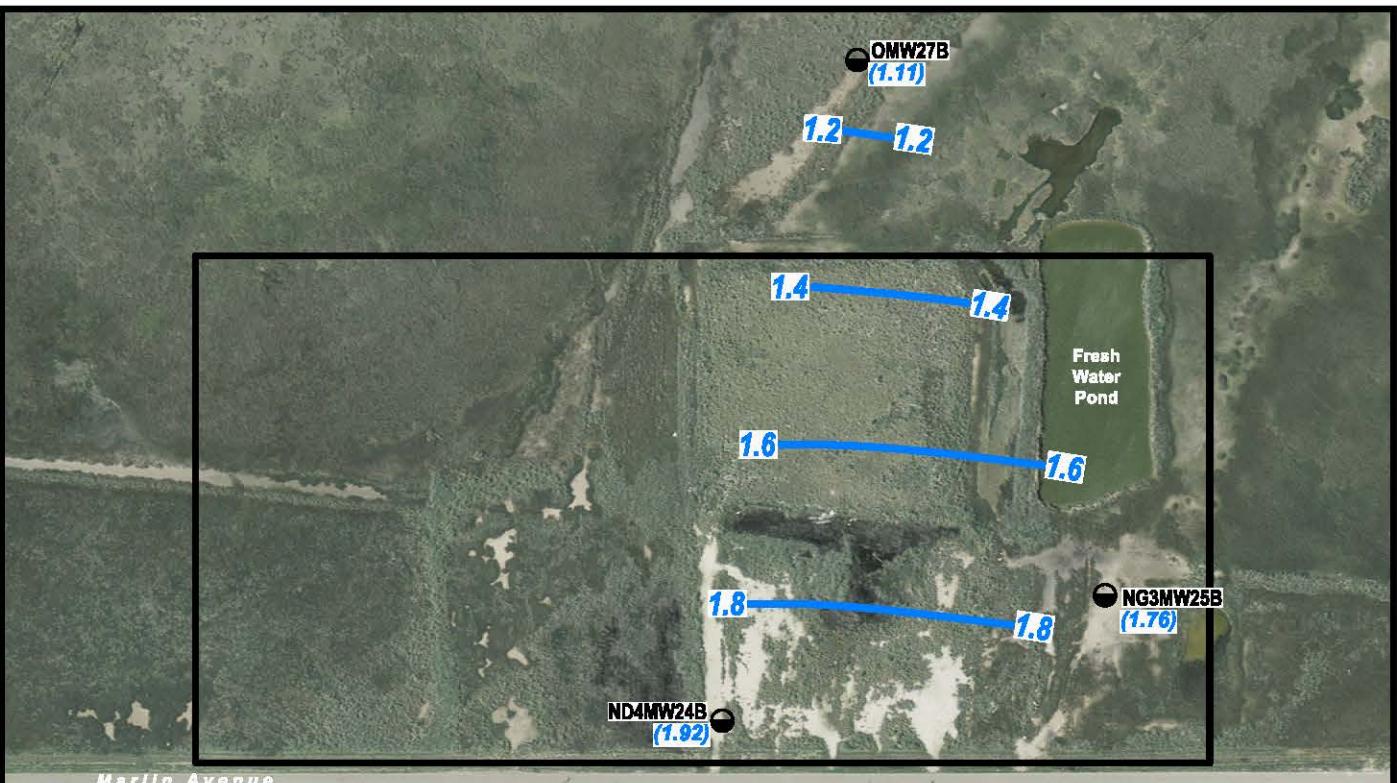
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Figure 34

ZONE B POTENTIOMETRIC SURFACE SEPTEMBER 6, 2007

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EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- (1.92) Water-Level Elevation (Ft AMSL) Measured 11/07/07
- Monitoring Well Location - Zone B
- 1.6 — Potentiometric Surface Contour (Ft AMSL)
Contour Interval = 0.2 Ft

Source of photo: H-GAC, Texas aerial photograph, 2006.

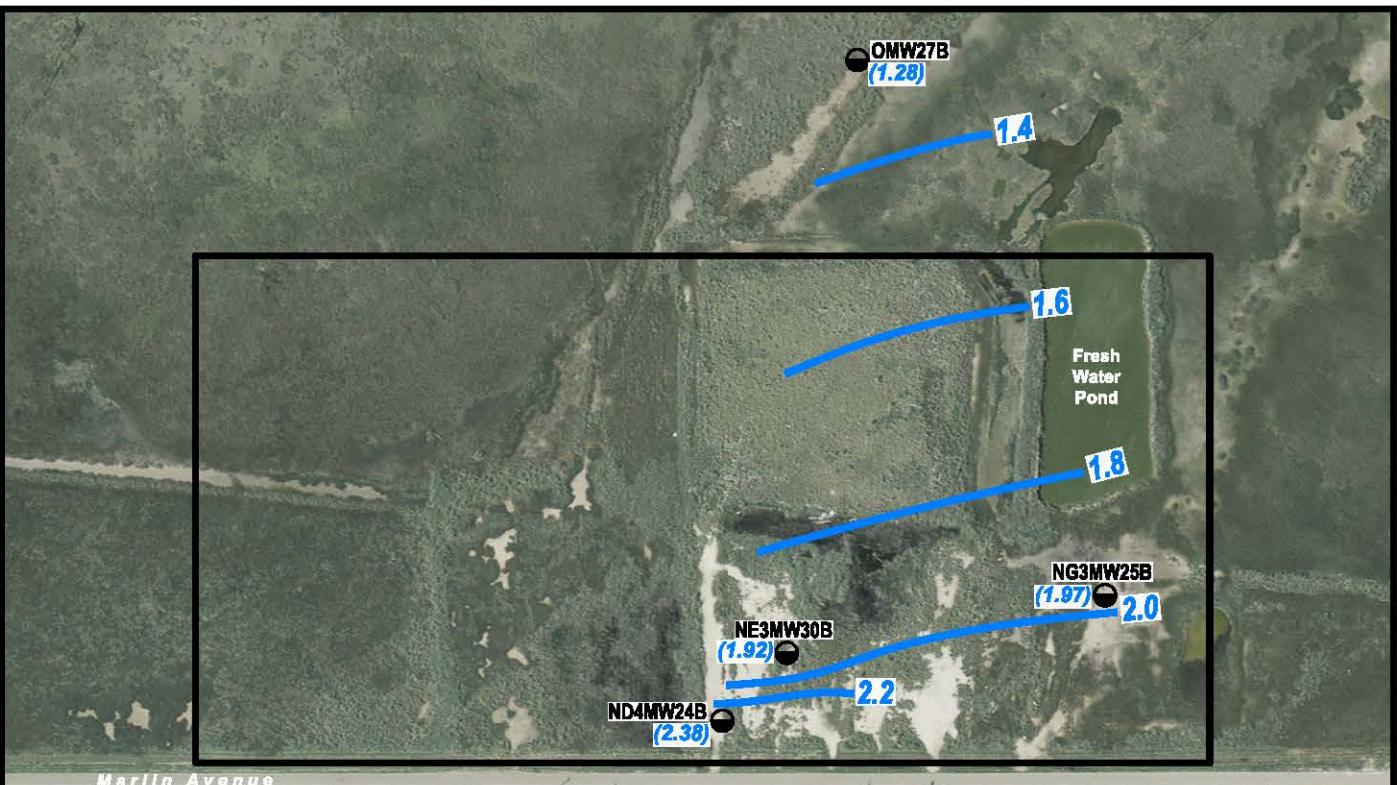
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Figure 35

ZONE B POTENTIOMETRIC SURFACE NOVEMBER 7, 2007

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EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- (2.38) Water-Level Elevation (Ft AMSL) Measured 12/03/07
- Monitoring Well Location - Zone B
- 2.0 Potentiometric Surface Contour (Ft AMSL) Contour Interval = 0.2 Ft

Source of photo: H-GAC, Texas aerial photograph, 2006.

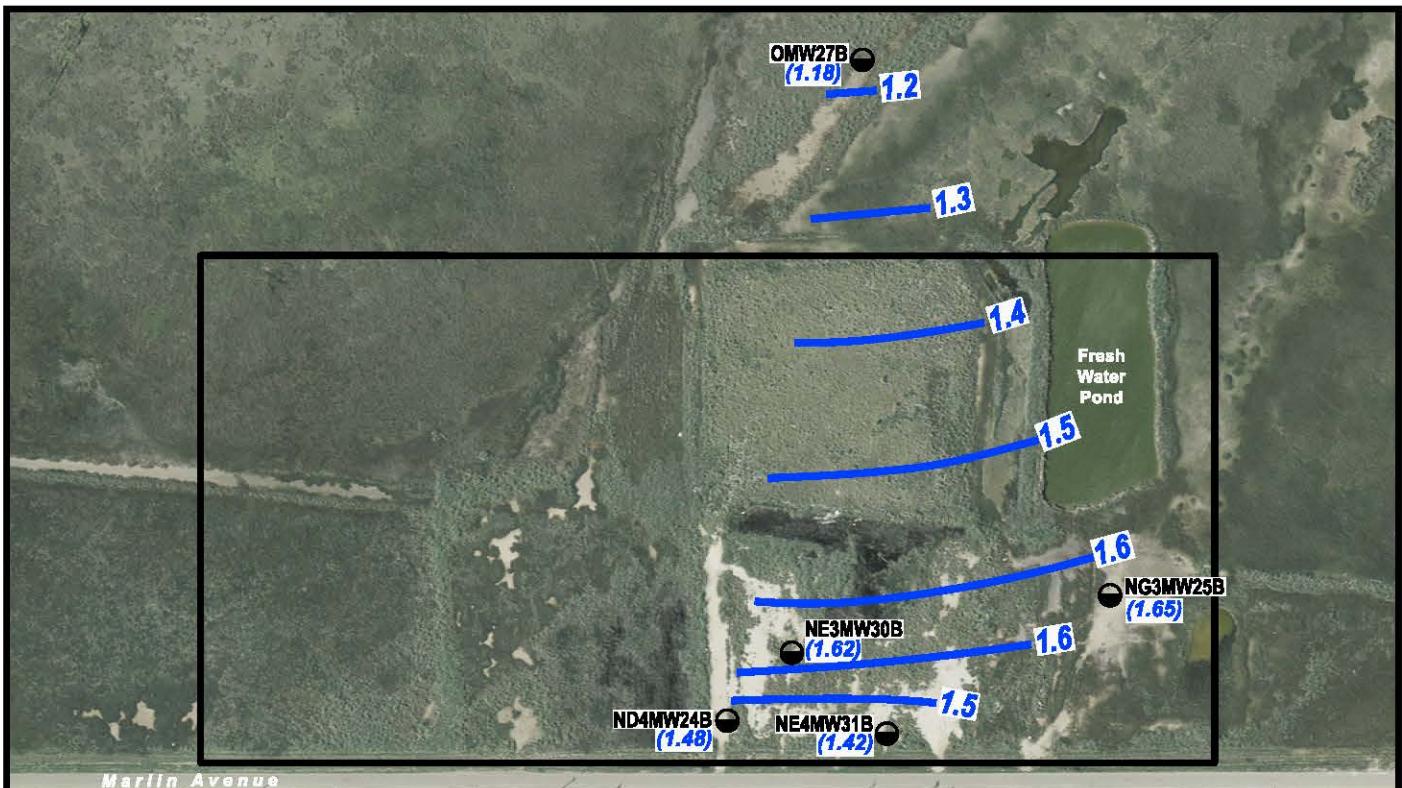
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Figure 36

ZONE B POTENTIOMETRIC SURFACE DECEMBER 3, 2007

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EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- (1.48) Water-Level Elevation (Ft AMSL) Measured 7/30/08
- Monitoring Well Location - Zone B
- 1.5 Potentiometric Surface Contour (Ft AMSL) Contour Interval = 0.1 Ft

Source of photo: H-GAC, Texas aerial photograph, 2006.

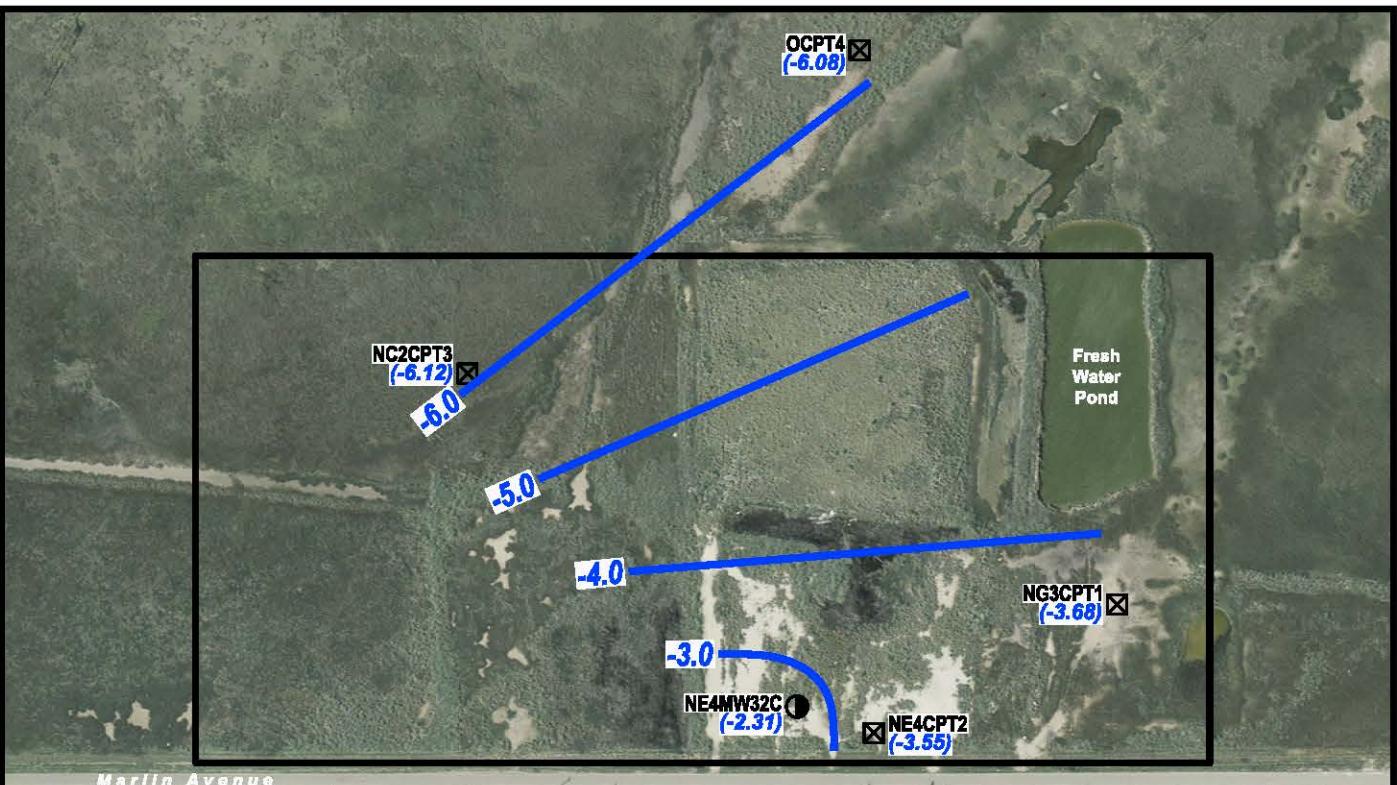
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Figure 37

ZONE B POTENTIOMETRIC SURFACE JULY 30, 2008

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EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
 - (●) Monitoring Well Location - Zone C
 - (☒) CPT Piezometer Location - Zone C
- (-6.12) Water-Level Elevation (Ft AMSL) Measured 6/17/08
- (-3.0) Potentiometric Surface Contour (Ft AMSL)
Contour Interval = 1 Ft

Source of photo: H-GAC, Texas aerial photograph, 2006.

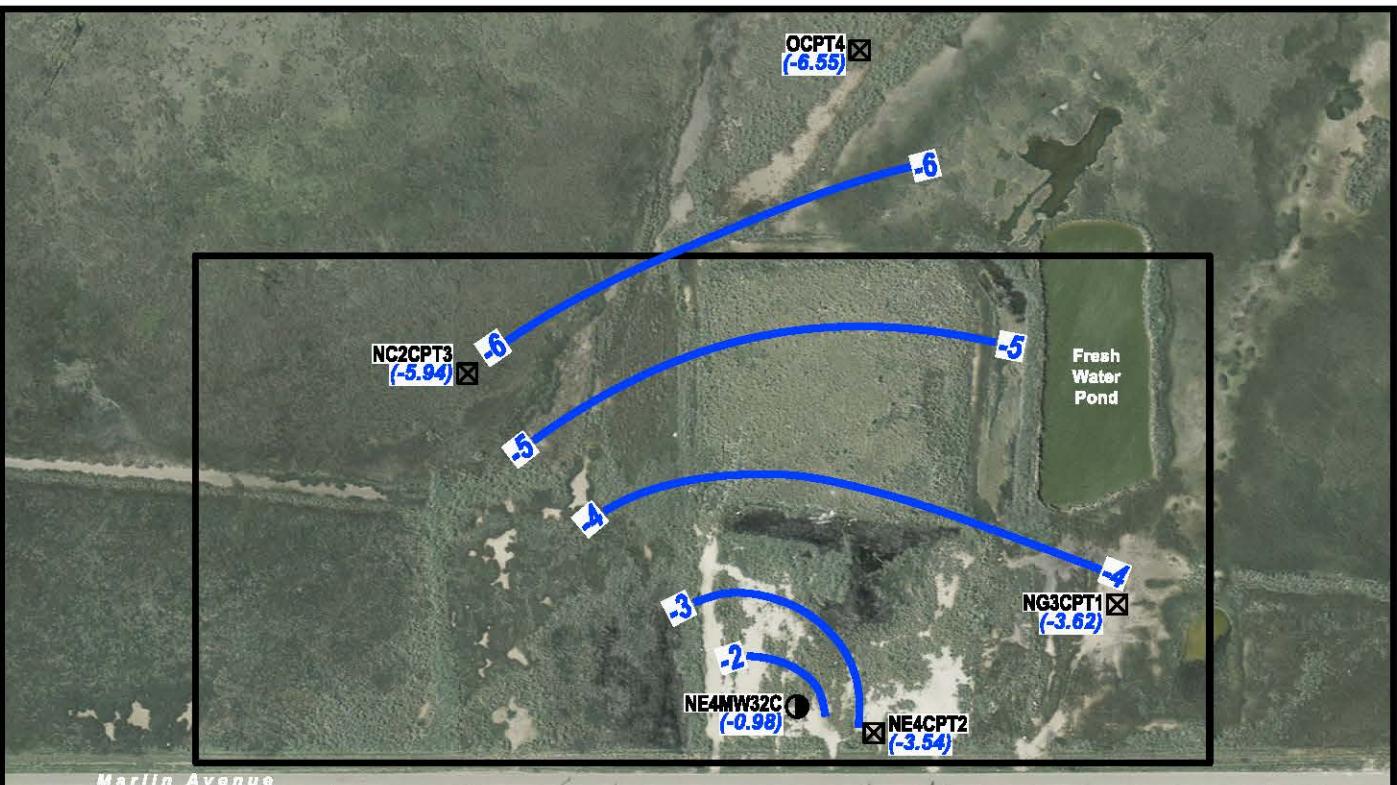
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Figure 38

ZONE C POTENTIOMETRIC SURFACE JUNE 17, 2008

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EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- (●) Monitoring Well Location - Zone C
- (☒) CPT Piezometer Location - Zone C
- (-6.55) Water-Level Elevation (Ft AMSL) Measured 7/30/08
- (-3.0) Potentiometric Surface Contour (Ft AMSL) Contour Interval = 1 Ft

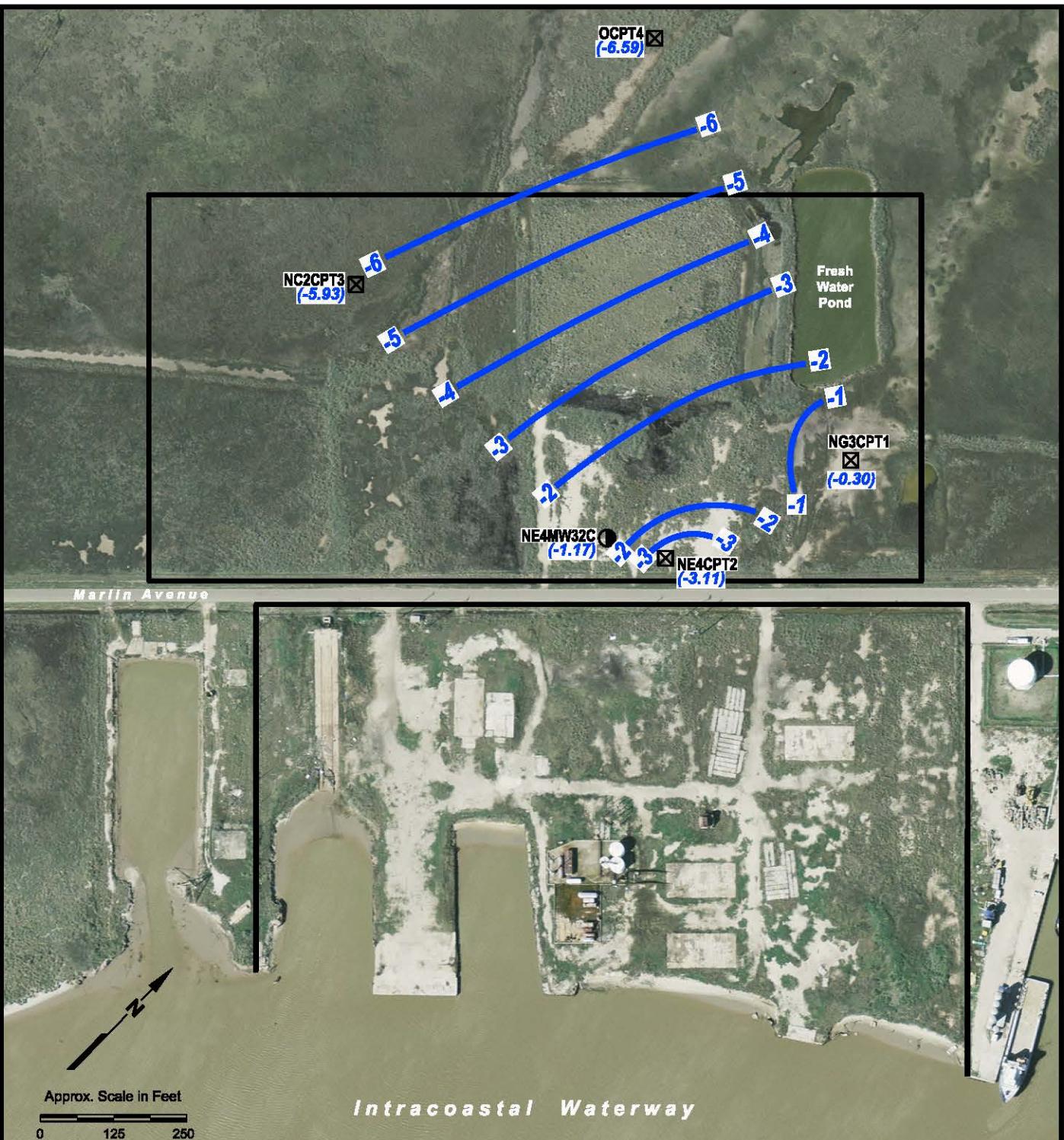
Source of photo: H-GAC, Texas aerial photograph, 2006.

**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 39
**ZONE C
POTENTIOMETRIC SURFACE
JULY 30, 2008**

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: SEPT., 2011	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- (●) Monitoring Well Location - Zone C
- (☒) CPT Piezometer Location - Zone C
- (-3.11) Water-Level Elevation (Ft AMSL) Measured 9/29/08
- (-3.0) Potentiometric Surface Contour (Ft AMSL) Contour Interval = 1 Ft

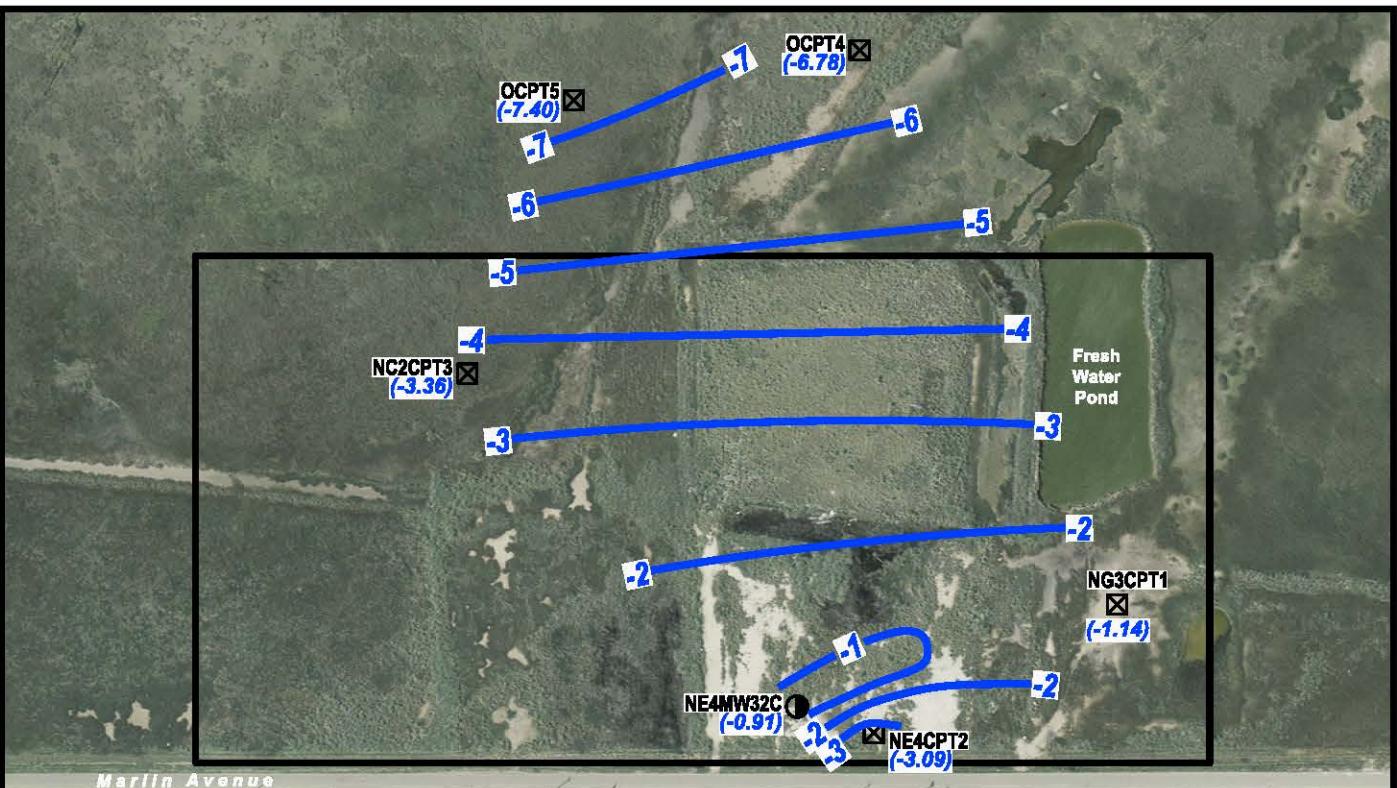
Source of photo: H-GAC, Texas aerial photograph, 2006.

**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

**Figure 40
ZONE C
POTENTIOMETRIC SURFACE
SEPTEMBER 29, 2008**

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: SEPT., 2011	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- (●) Monitoring Well Location - Zone C
- (☒) CPT Piezometer Location - Zone C
- (-3.0) Water-Level Elevation (Ft AMSL) Measured 1/13/09
- (-3.0) Potentiometric Surface Contour (Ft AMSL) Contour Interval = 1 Ft

Source of photo: H-GAC, Texas aerial photograph, 2006.

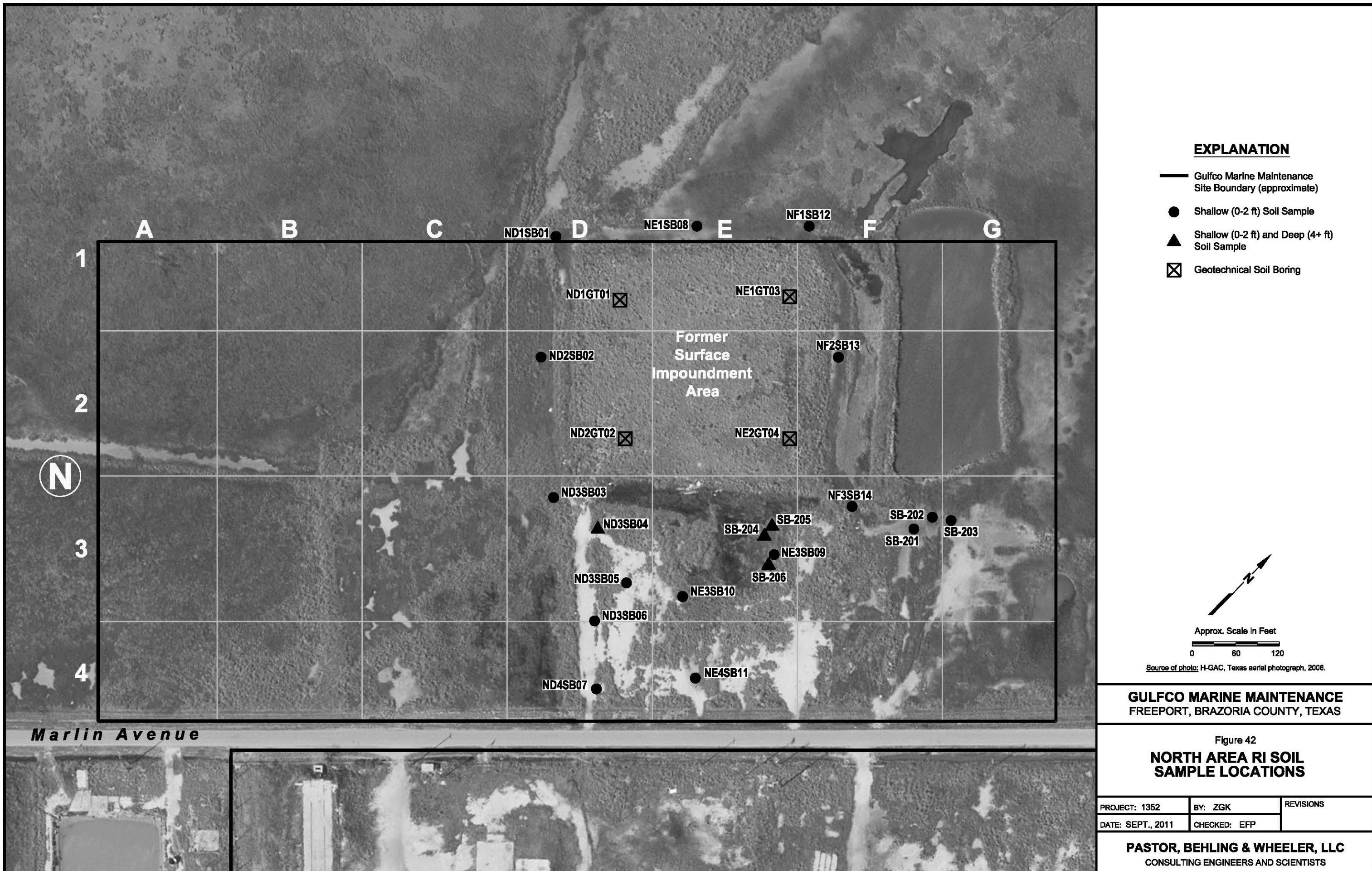
**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 41

ZONE C POTENTIOMETRIC SURFACE JANUARY 13, 2009

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: SEPT., 2011	CHECKED: EFP	

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Marlin Avenue A B C D E F G H I J K L



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- Shallow Soil Sample (0-2 ft)
- Shallow (0-2 ft) and Deep (4-5 ft) Soil Sample
- Lot 20 Soil Sample



Approx. Scale in Feet
0 60 120

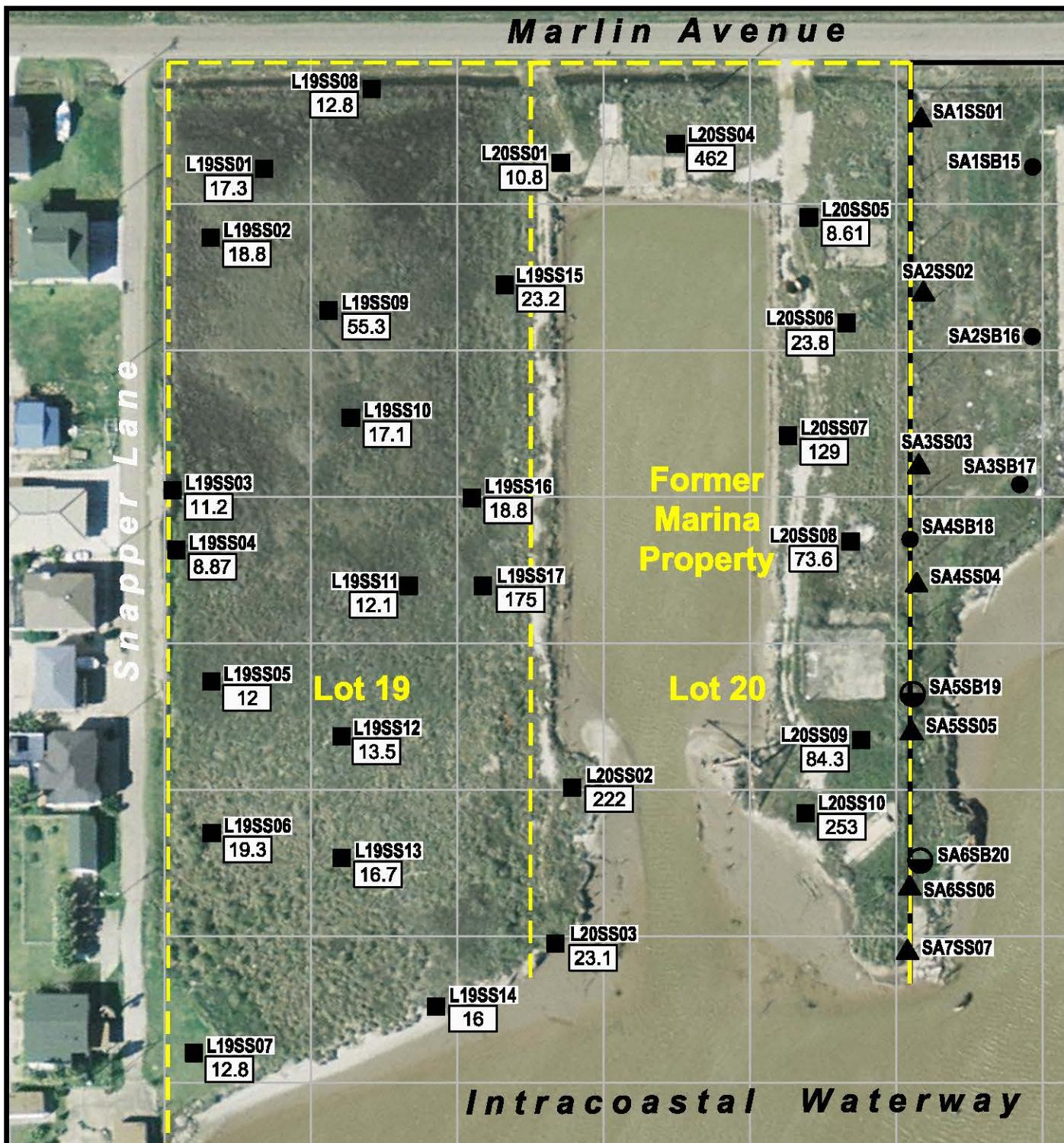
Source of photo: H-GAC, Texas aerial photograph, 2006.

**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

Figure 43
**SOUTH AREA
SOIL INVESTIGATION PROGRAM
SAMPLE LOCATIONS**

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: SEPT., 2011	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- Parcel Boundary (approximate)
- Judgmental Soil Sample (0-2 ft)
- Random Systematic Soil Sample (0-2 ft)
- ▲ Lot 21 Surface Soil Sample (0-1 in)
- Lot 19/20 Surface Soil Sample (0-1 in)
- 12.8 Lead Concentration (mg/Kg)



Approx. Scale in Feet

0 50 100

Source of photo:
H-GAC, Texas aerial photograph, 2006.

GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS

Figure 44

LEAD CONCENTRATIONS IN LOT 19-20 SURFACE SOIL SAMPLES

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: SEPT., 2011	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- Parcel Boundary (approximate)
- ▲ Lot 21 Surface Soil Sample (0-1 in)
- Lot 19/20 Surface Soil Sample (0-1 in)



Approx. Scale in Feet



Source of photo:
H-GAC, Texas aerial photograph, 2006.

**GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS**

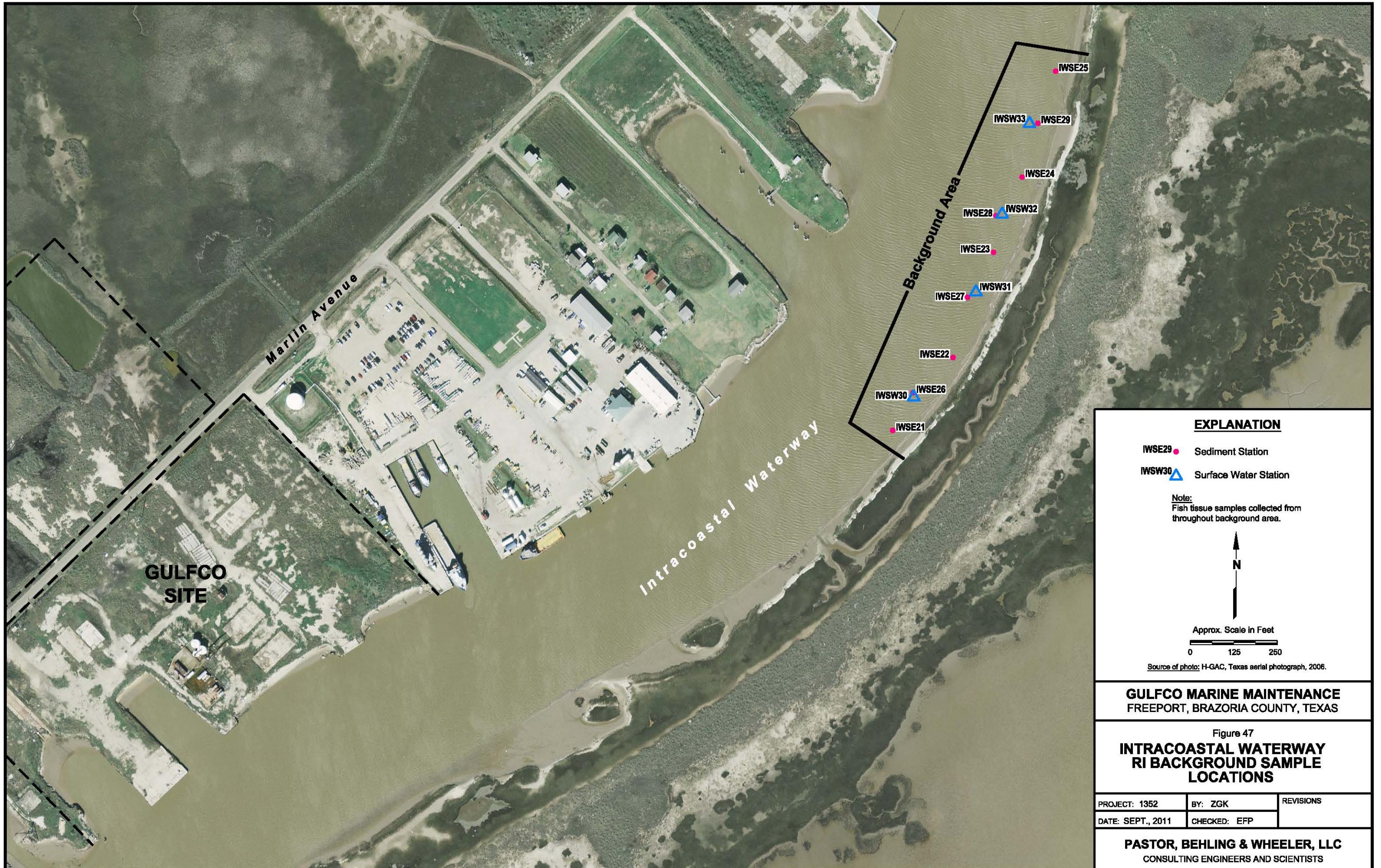
Figure 45

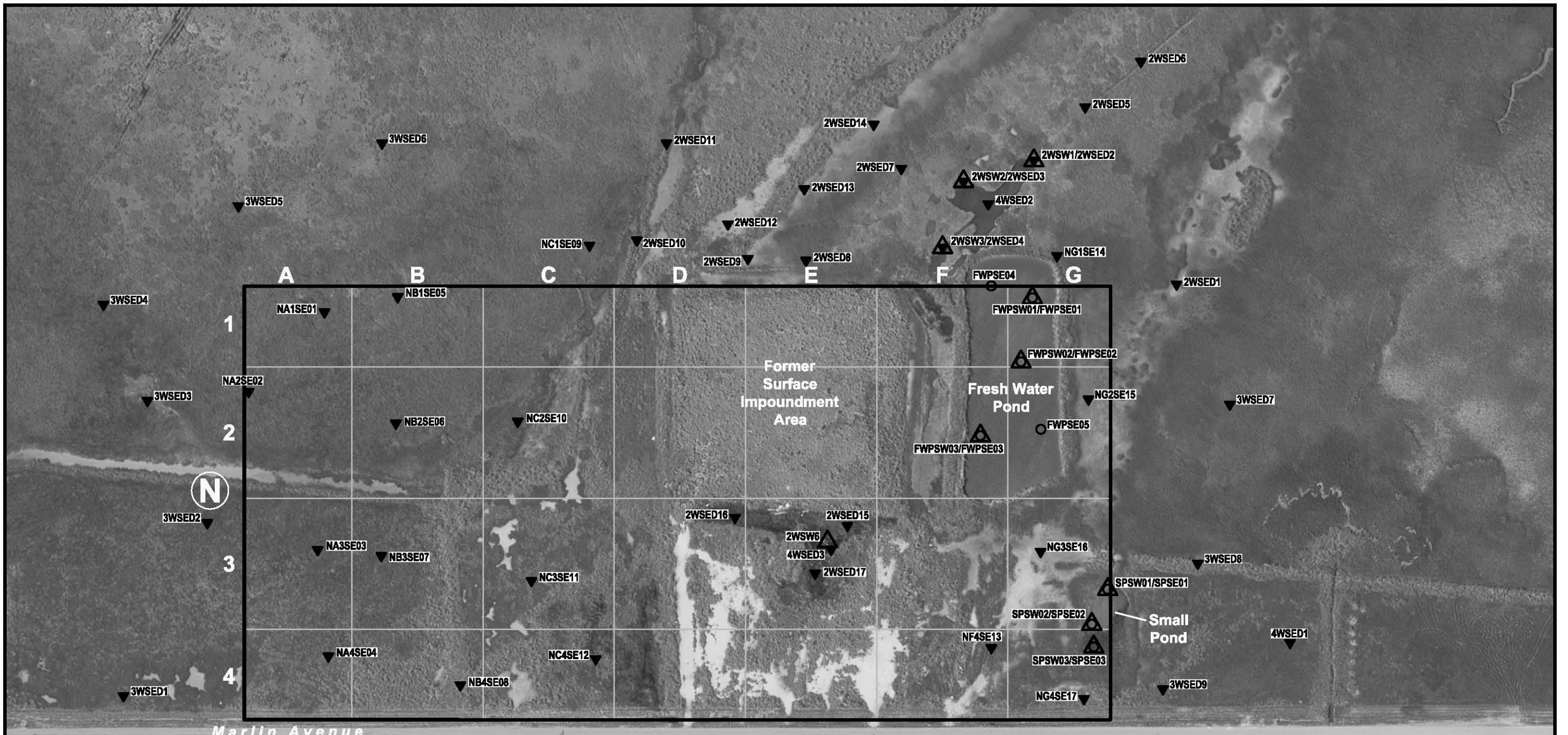
RESIDENTIAL SURFACE SOIL INVESTIGATION PROGRAM SAMPLE LOCATIONS

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: SEPT., 2011	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS







EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- ▼ Wetland Sediment Sample Location
- ▲ Wetland/Pond Surface Water Sample Location
- Pond Sediment Sample Location

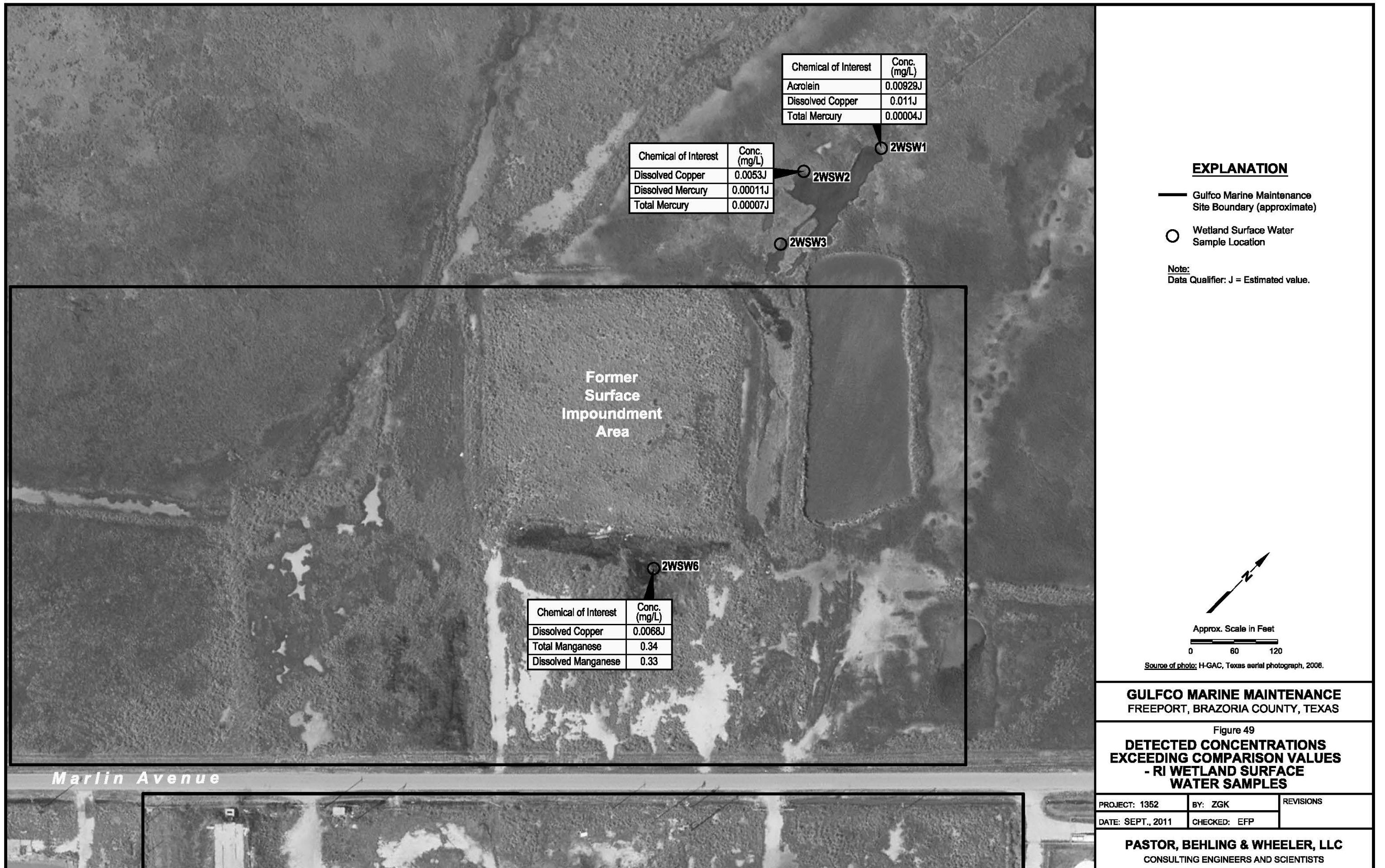
GULFCO MARINE MAINTENANCE
FREEPORT, BRAZORIA COUNTY, TEXAS

Figure 48

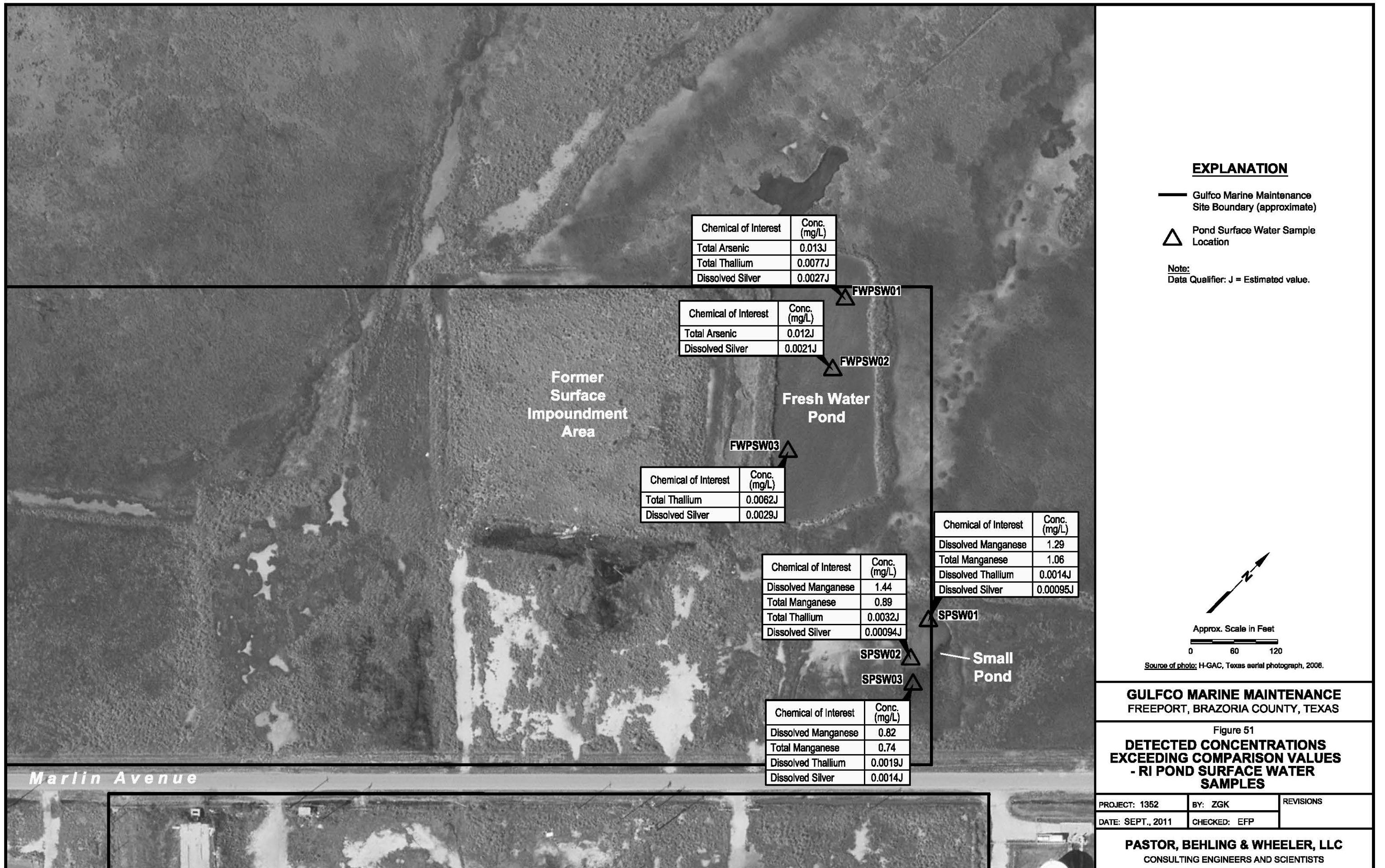
RI WETLAND AND POND SAMPLE LOCATIONS

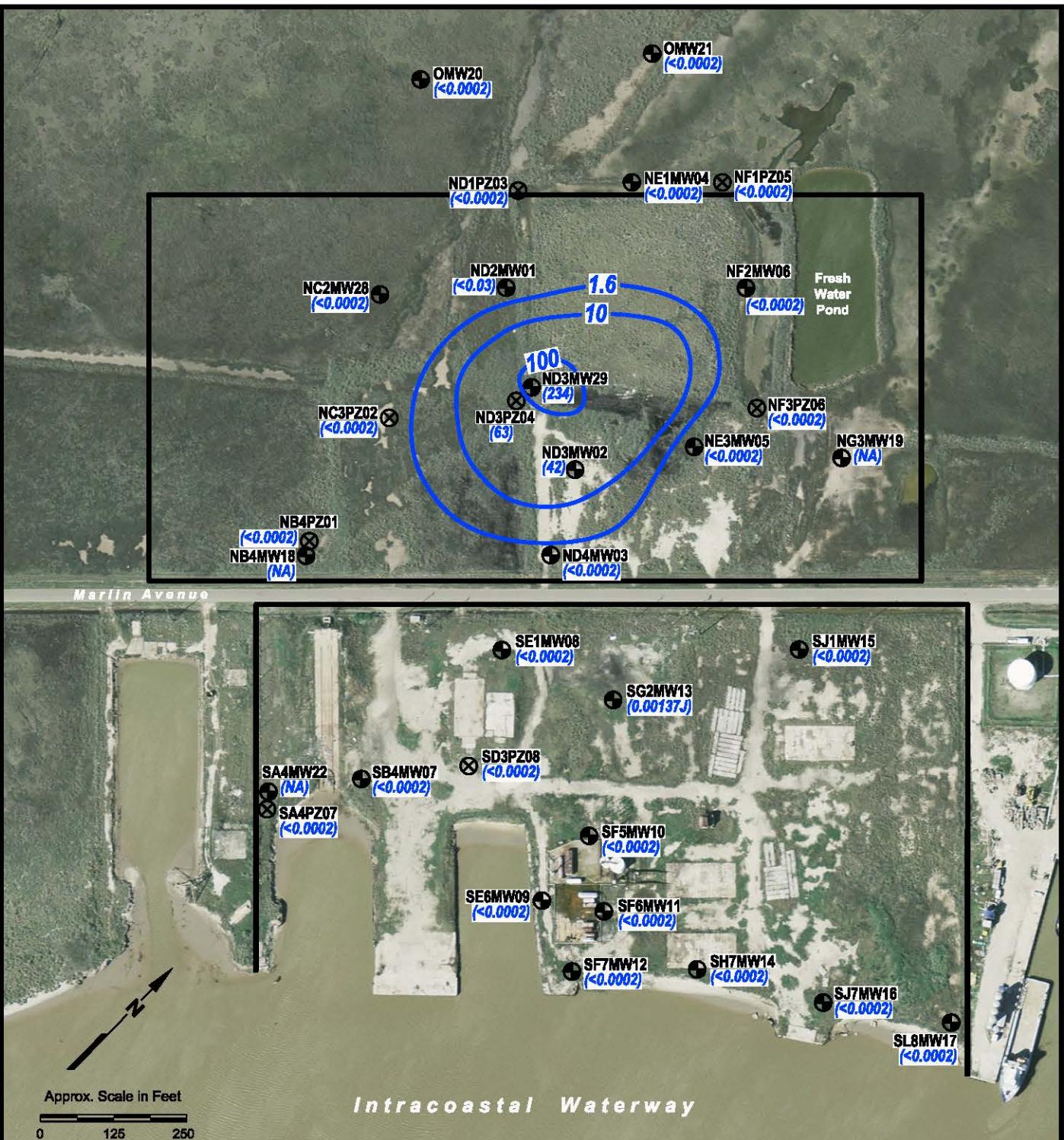
PROJECT: 1352	BY: ZGK	REVISIONS
DATE: SEPT., 2011	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS









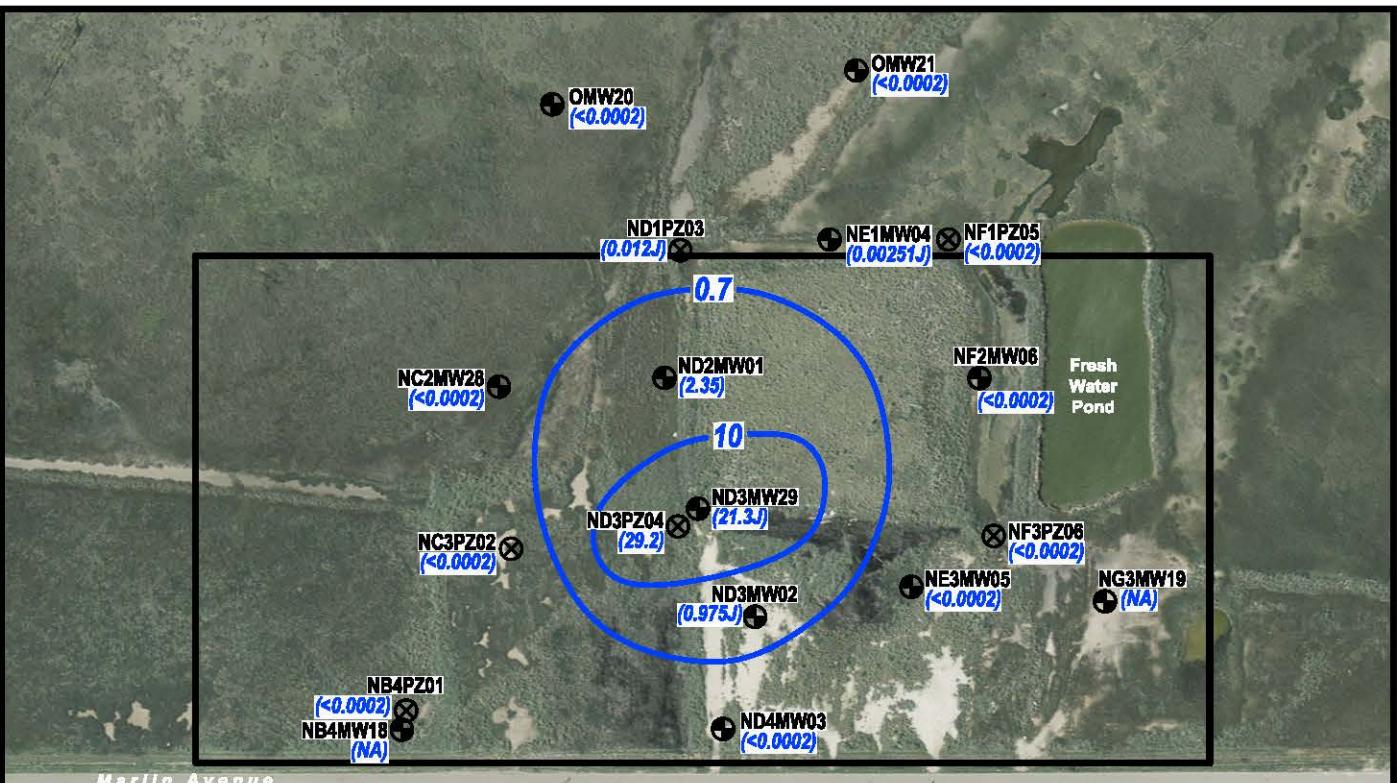
GULFCO MARINE MAINTENANCE FREEPORT, BRAZORIA COUNTY, TEXAS

Figure 52

1,1,1-TCA CONCENTRATIONS IN ZONE A MONITORING WELLS

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: SEPT., 2011	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- (●) Monitoring Well Location - Zone A
- (⊗) Temporary Piezometer - Zone A

(2.35) 1,1-Dichloroethene (1,1-DCE)
Concentration (mg/L)
—0.7— Concentration Contour (mg/L)
Variable Contour Interval

Notes:

1. Concentrations are for the most recent sample collected from each location.
2. NA = Not analyzed for this compound.
3. J = Estimated value.

Source of photo: H-GAC, Texas aerial photograph, 2006.

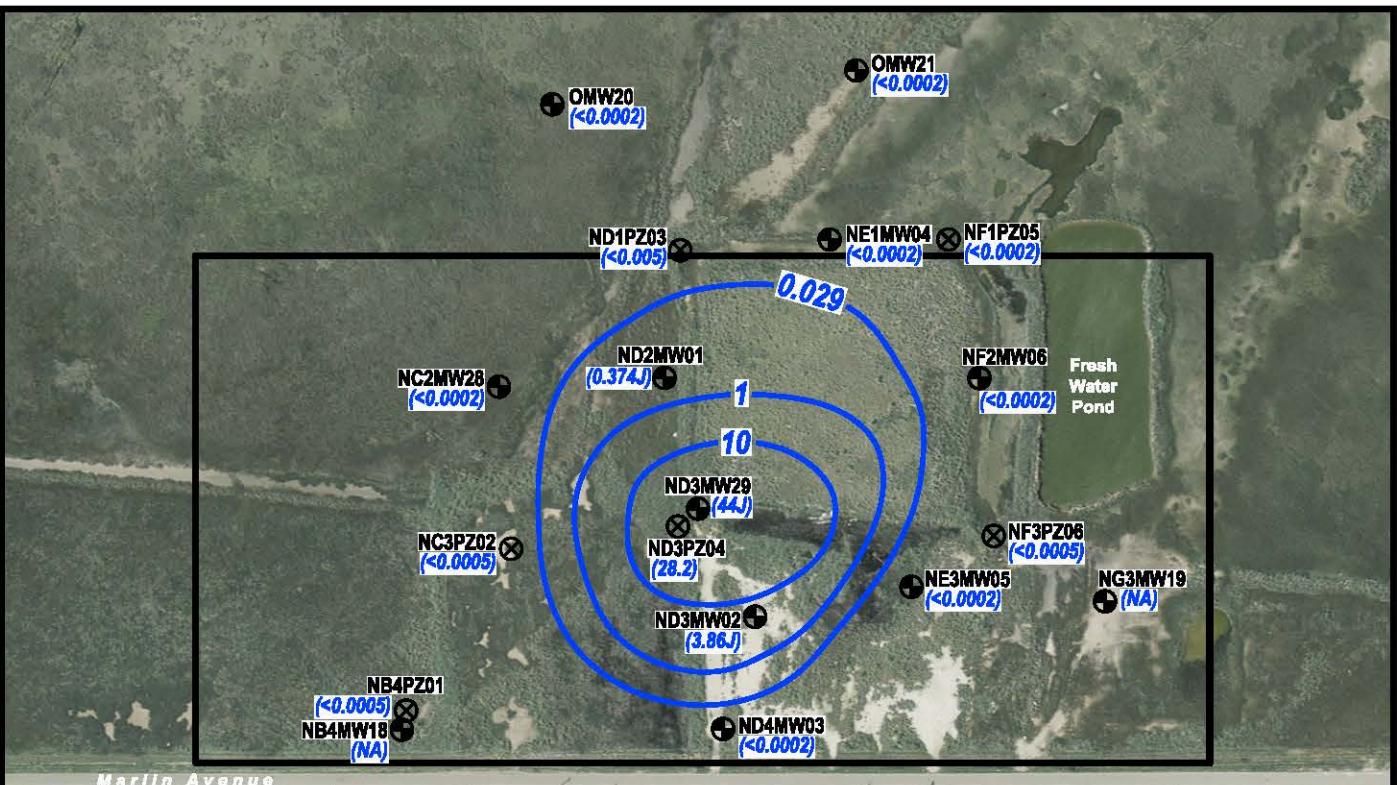
GULFCO MARINE MAINTENANCE FREEPORT, BRAZORIA COUNTY, TEXAS

Figure 53

1,1-DCE CONCENTRATIONS IN ZONE A MONITORING WELLS

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: SEPT., 2011	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
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EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- (●) Monitoring Well Location - Zone A
- (⊗) Temporary Piezometer - Zone A
- (— 10 —) Concentration Contour (mg/L) Variable Contour Interval

Notes:

1. Concentrations are for the most recent sample collected from each location.
2. NA = Not analyzed for this compound.
3. J = Estimated value.

Source of photo: H-GAC, Texas aerial photograph, 2006.

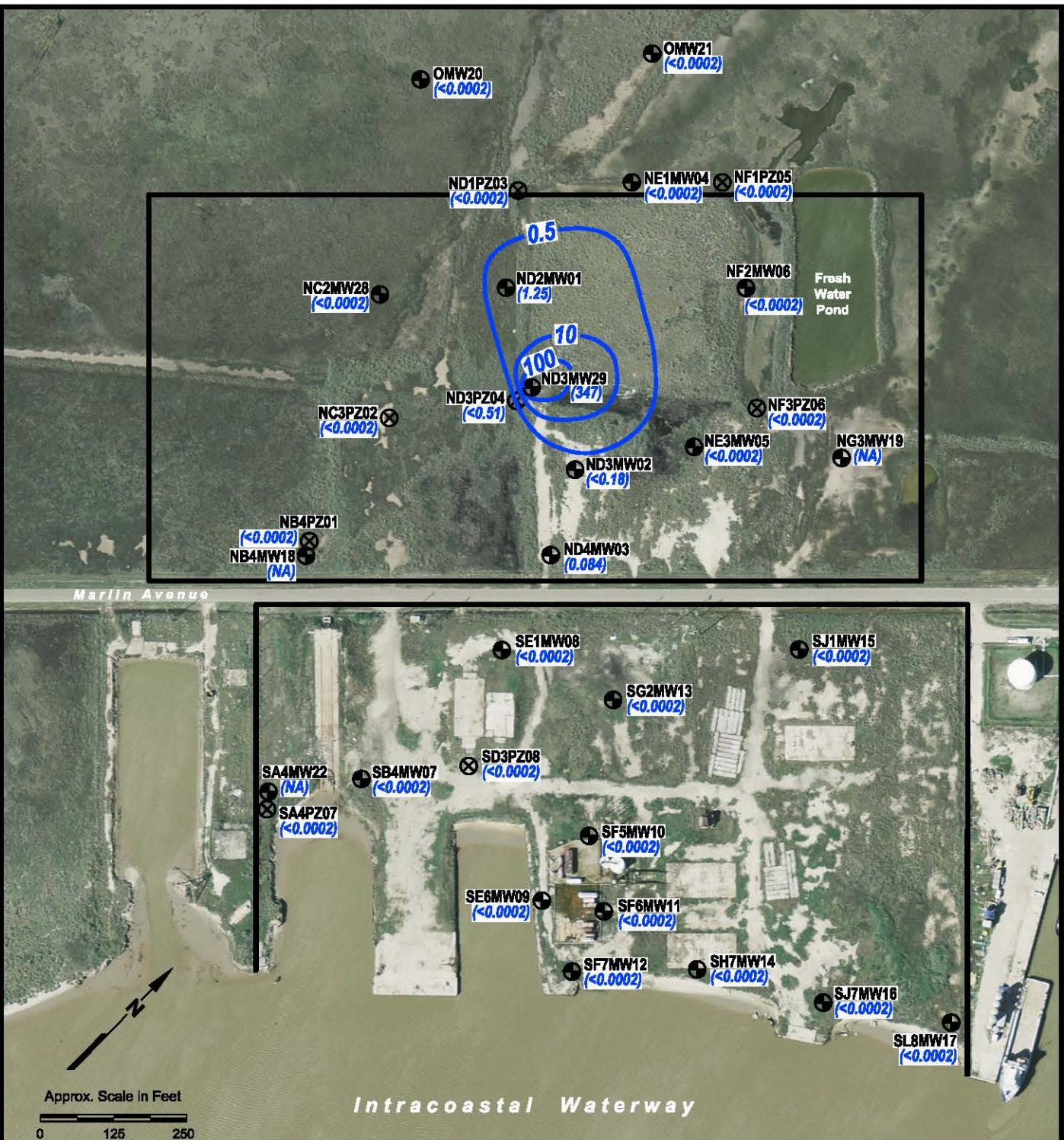
GULFCO MARINE MAINTENANCE FREEPORT, BRAZORIA COUNTY, TEXAS

Figure 54

1,2,3-TCP CONCENTRATIONS IN ZONE A MONITORING WELLS

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: SEPT., 2011	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- Monitoring Well Location - Zone A
- Temporary Piezometer - Zone A

- (1.25) 1,2-Dichloroethane (1,2-DCA) Concentration (mg/L)
- 0.5- Concentration Contour (mg/L) Variable Contour Interval

Notes:

- Concentrations are from the most recent sample collected from each location.
- NA = Not analyzed for this compound.

Source of photo: H-GAC, Texas aerial photograph, 2006.

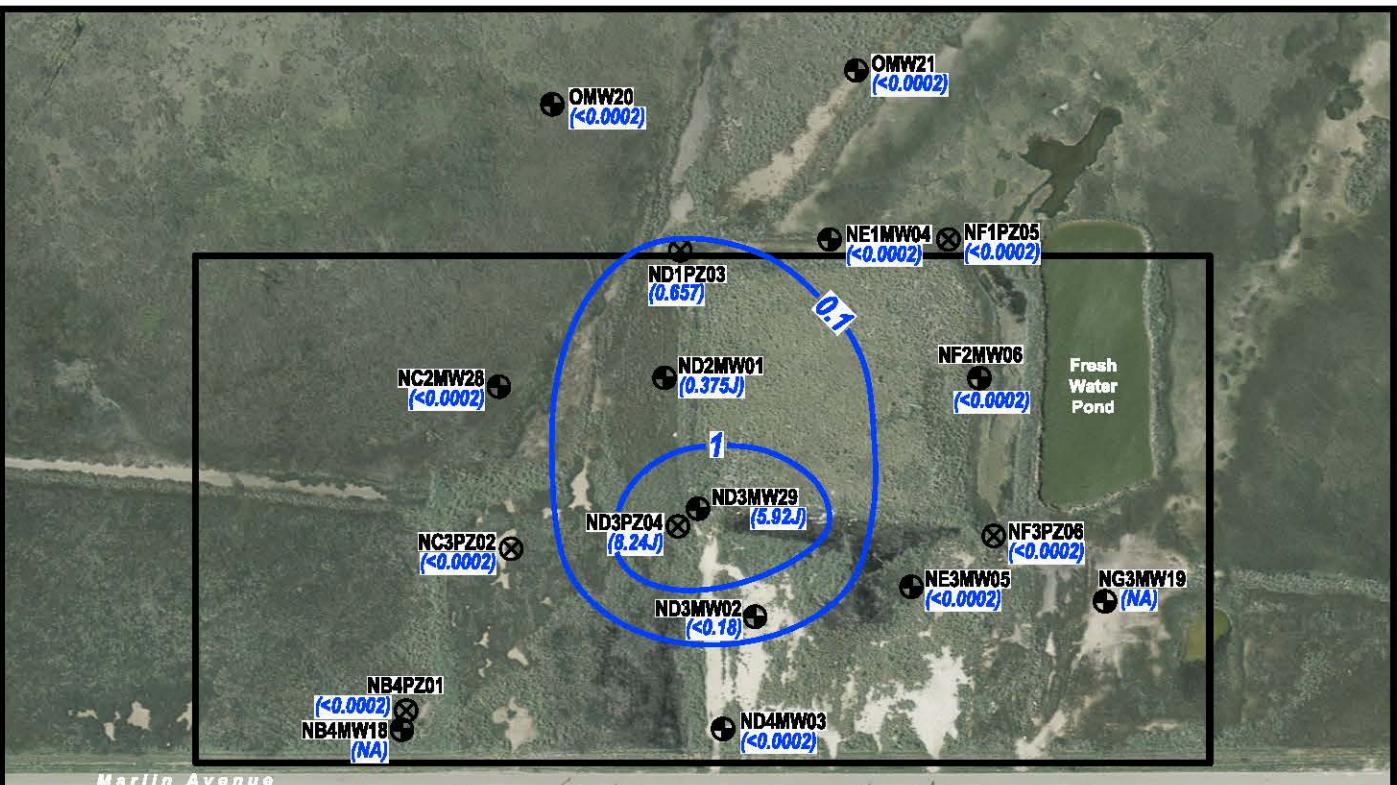
GULFCO MARINE MAINTENANCE FREEPORT, BRAZORIA COUNTY, TEXAS

Figure 55

1,2-DCA CONCENTRATIONS IN ZONE A MONITORING WELLS

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: SEPT., 2011	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- (●) Monitoring Well Location - Zone A
- (⊗) Temporary Piezometer - Zone A

- (1.25) Benzene Concentration (mg/L)
- 0.1 — Concentration Contour (mg/L)
Variable Contour Interval

Notes:

1. Concentrations are for the most recent sample collected from each location.
2. NA = Not analyzed for this compound.
3. J = Estimated value.

Source of photo: H-GAC, Texas aerial photograph, 2006.

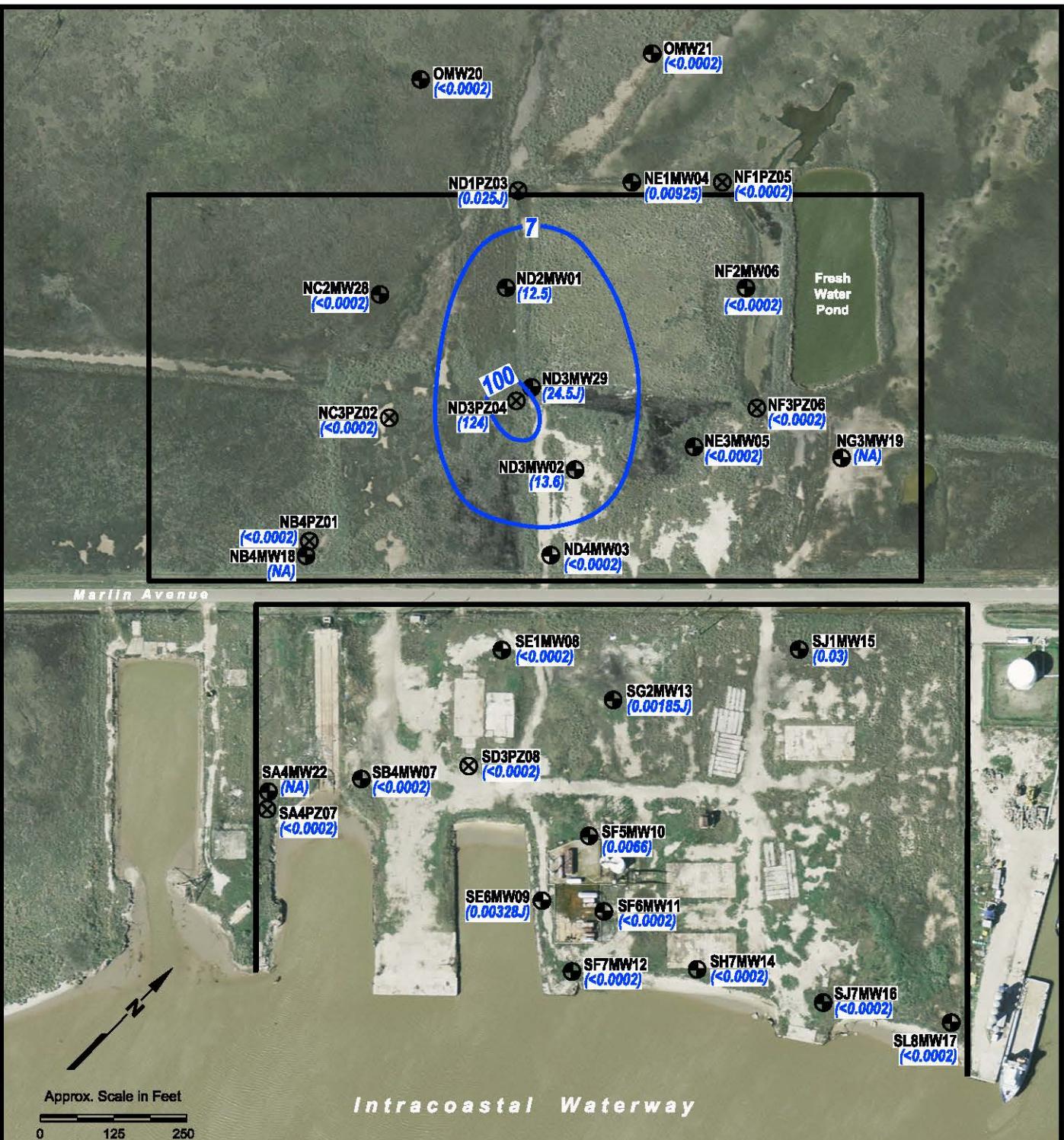
GULFCO MARINE MAINTENANCE FREEPORT, BRAZORIA COUNTY, TEXAS

Figure 56

BENZENE CONCENTRATIONS IN ZONE A MONITORING WELLS

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: SEPT., 2011	CHECKED: EFP	

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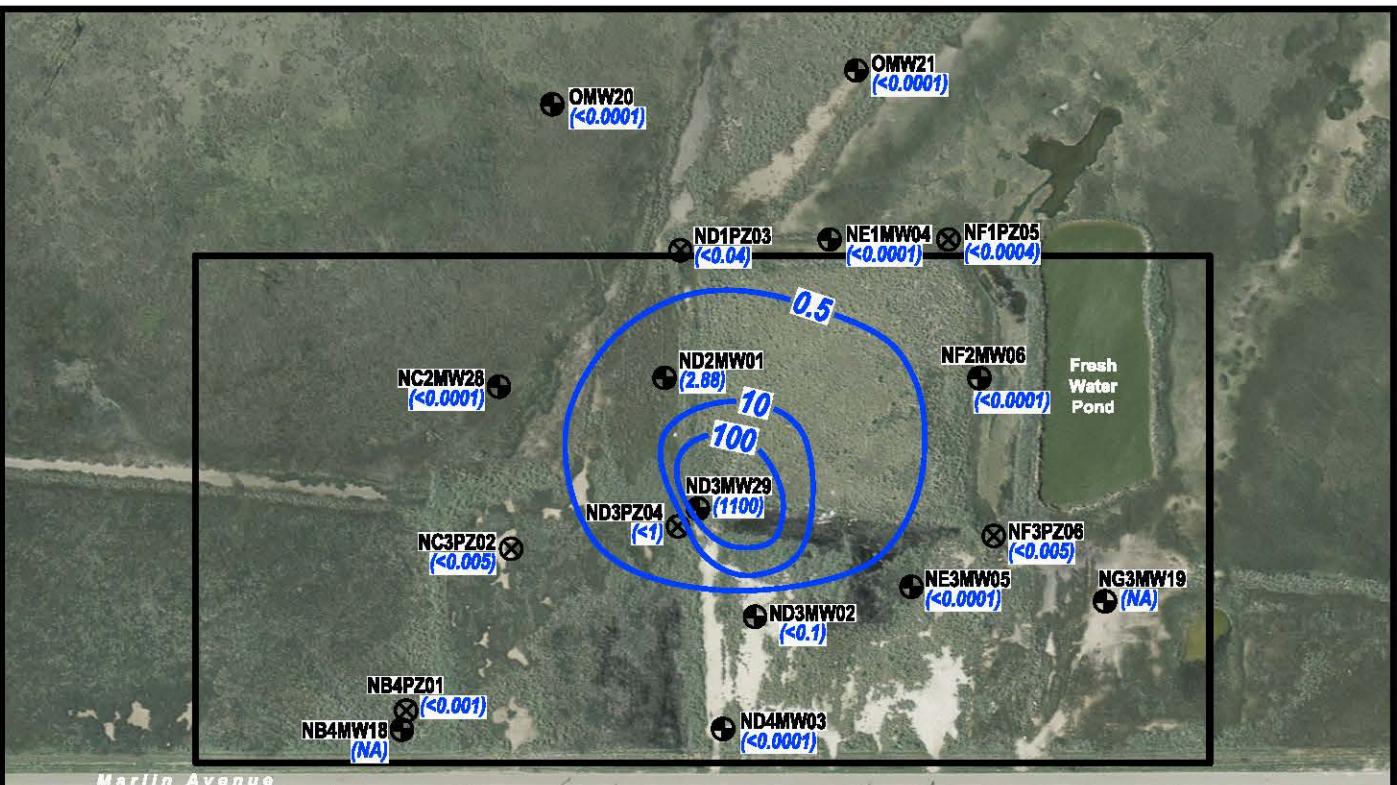
GULFCO MARINE MAINTENANCE FREEPORT, BRAZORIA COUNTY, TEXAS

Figure 57

CIS-1,2-DCE CONCENTRATIONS IN ZONE A MONITORING WELLS

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: SEPT., 2011	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
 - Monitoring Well Location - Zone A
 - ⊗ Temporary Piezometer - Zone A
- (<0.1) Methylene Chloride Concentration (mg/L)
- 0.5 — Concentration Contour (mg/L) Variable Contour Interval

Notes:

1. Concentrations are for the most recent sample collected from each location.
2. NA = Not analyzed for this compound.

Source of photo: H-GAC, Texas aerial photograph, 2006.

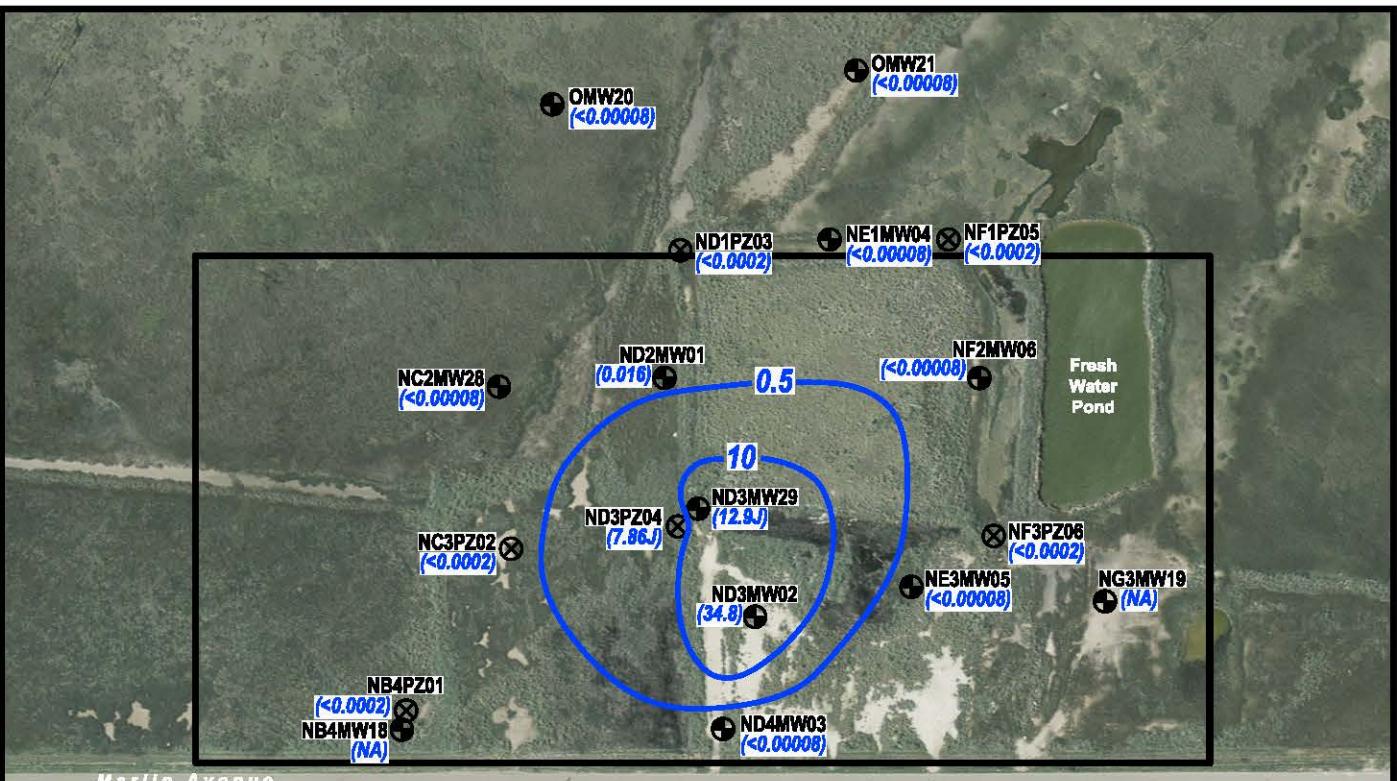
GULFCO MARINE MAINTENANCE FREEPORT, BRAZORIA COUNTY, TEXAS

Figure 58

METHYLENE CHLORIDE CONCENTRATIONS IN ZONE A MONITORING WELLS

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: SEPT., 2011	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- (●) Monitoring Well Location - Zone A
- (⊗) Temporary Piezometer - Zone A

- (7.86J) Tetrachloroethene (PCE)
Concentration (mg/L)
- 0.5 — Concentration Contour (mg/L)
Variable Contour Interval

Notes:

1. Concentrations are for the most recent sample collected from each location.
2. NA = Not analyzed for this compound.
3. J = Estimated value.

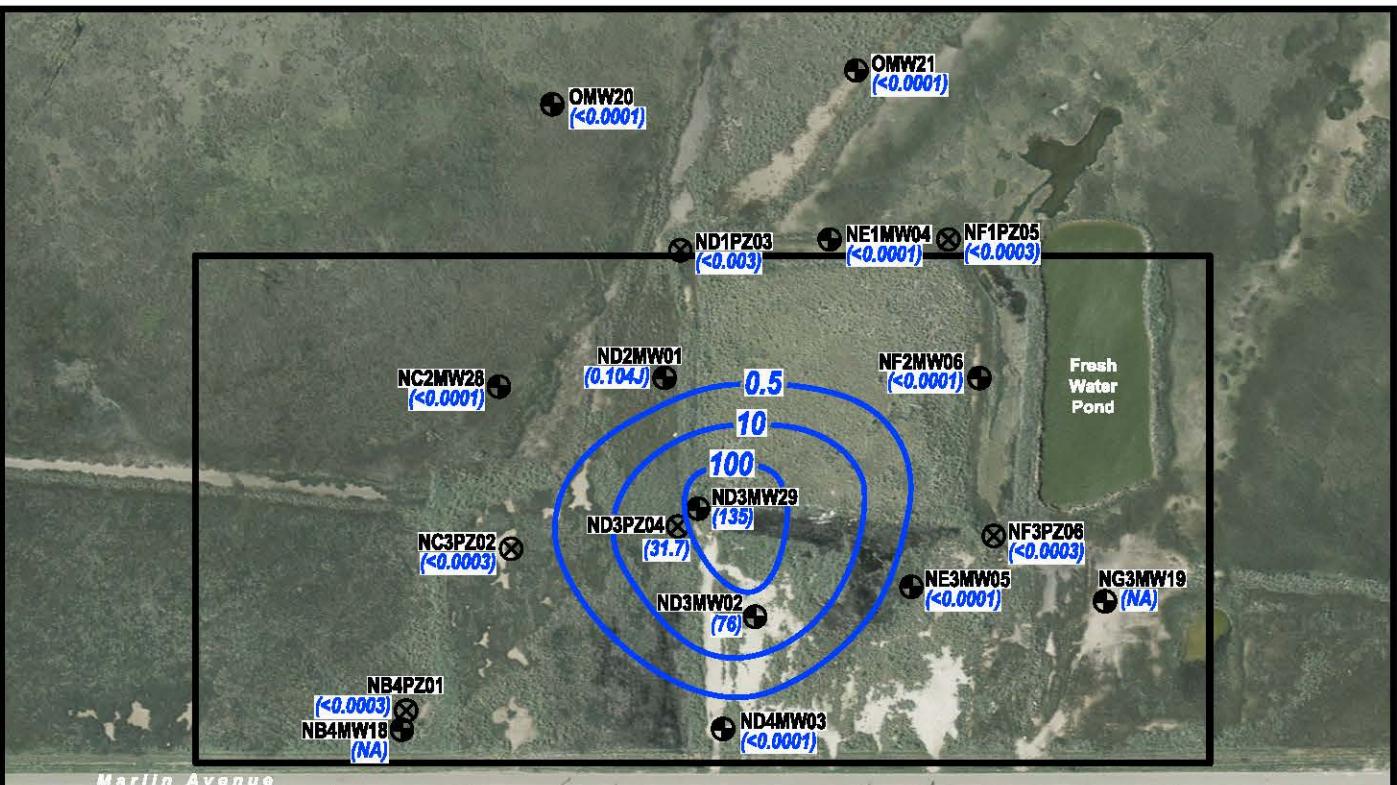
GULFCO MARINE MAINTENANCE FREEPORT, BRAZORIA COUNTY, TEXAS

Figure 59

PCE CONCENTRATIONS IN ZONE A MONITORING WELLS

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: SEPT., 2011	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS



EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- (●) Monitoring Well Location - Zone A
- (⊗) Temporary Piezometer - Zone A
- 0.5 — Concentration Contour (mg/L) Variable Contour Interval

Notes:

1. Concentrations are for the most recent sample collected from each location.
2. NA = Not analyzed for this compound.
3. J = Estimated value.

Source of photo: H-GAC, Texas aerial photograph, 2006.

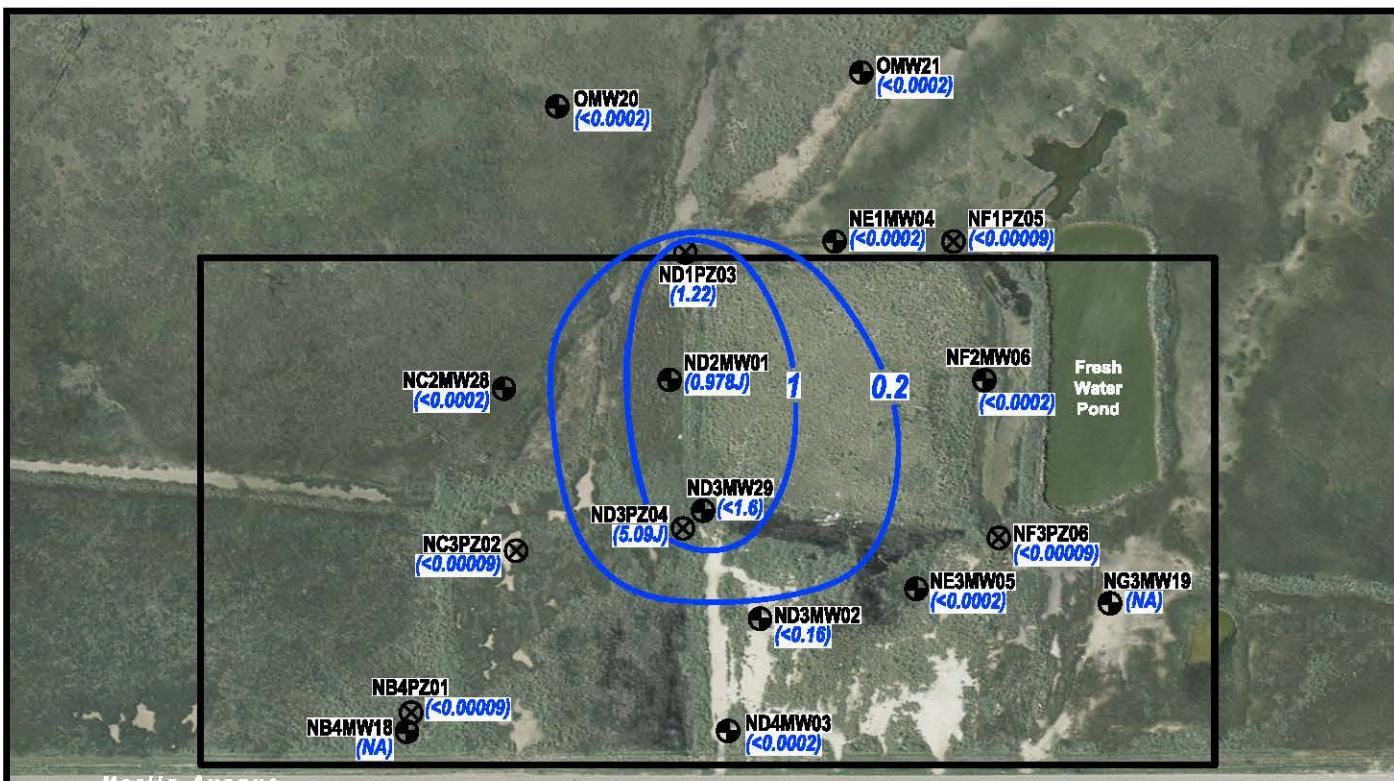
GULFCO MARINE MAINTENANCE FREEPORT, BRAZORIA COUNTY, TEXAS

Figure 60

TCE CONCENTRATIONS IN ZONE A MONITORING WELLS

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: SEPT., 2011	CHECKED: EFP	

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EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
 - Monitoring Well Location - Zone A
 - ⊗ Temporary Piezometer - Zone A
- (1.22) Vinyl Chloride Concentration (mg/L)
— 0.2 — Concentration Contour (mg/L) Variable Contour Interval

Notes:

1. Concentrations are for the most recent sample collected from each location.
2. NA = Not analyzed for this compound.
3. J = Estimated value.

Source of photo: H-GAC, Texas aerial photograph, 2006.

GULFCO MARINE MAINTENANCE FREEPORT, BRAZORIA COUNTY, TEXAS

Figure 61

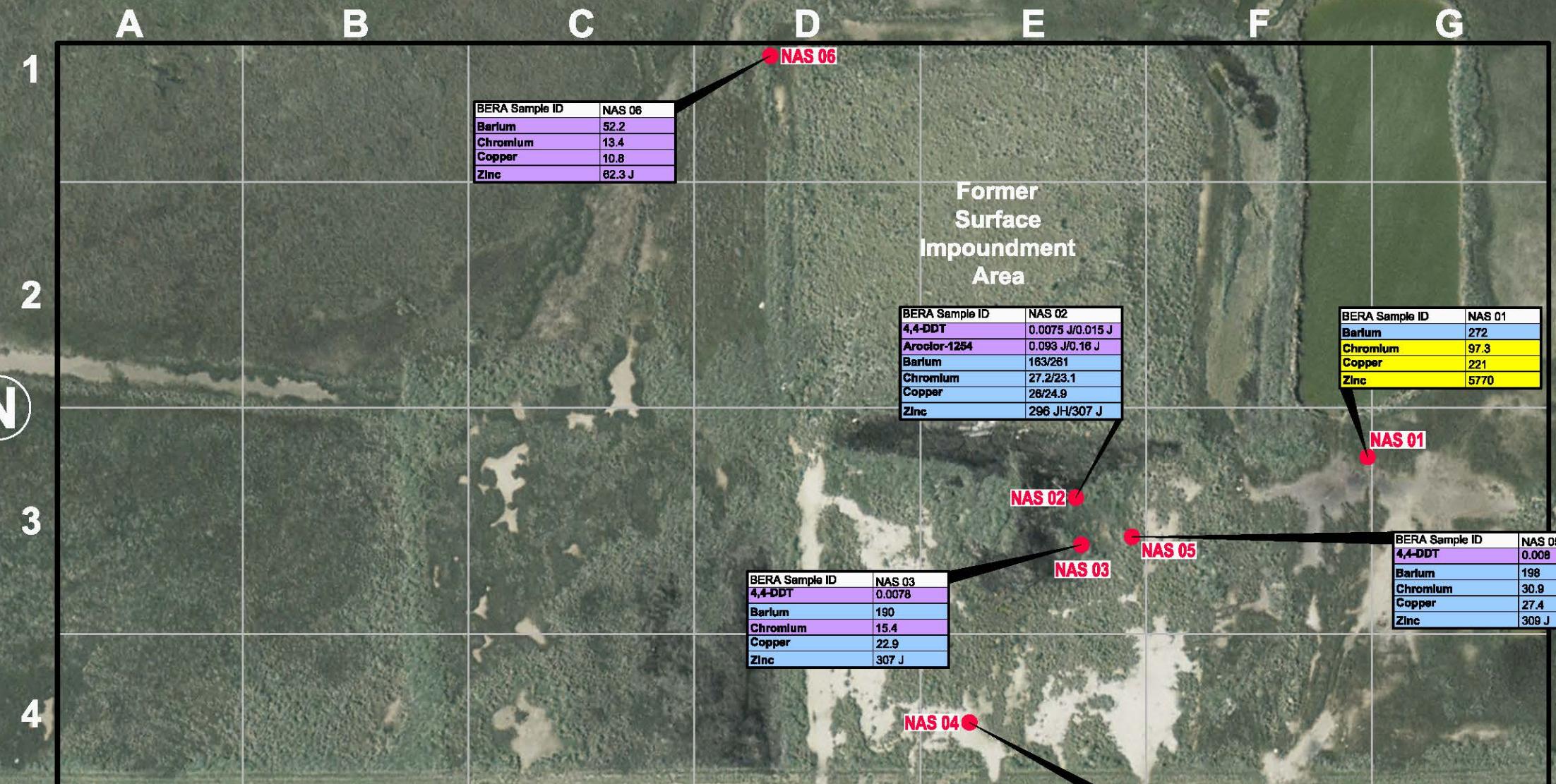
VINYL CHLORIDE CONCENTRATIONS IN ZONE A MONITORING WELLS

PROJECT: 1352	BY: ZGK	REVISIONS
DATE: SEPT., 2011	CHECKED: EFP	

PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS

EXPLANATION

- Gulfo Marine Maintenance Site Boundary (approximate)
- BERA Sediment Sample Location



Notes:
The background soil sample area is shown on Figure 1 (and Figure 14 of the Nature and Extent Data Report - May 20, 2009).

J - Estimated Value
H - Bias in results likely to be high
DW - Dry Weight

= High Concentration
= Mid Concentration
= Low Concentration

All Concentrations in mg/kg DW

Approx. Scale in Feet
0 60 120

Source of photo: H-GAC, Texas aerial photograph, 2008.

TITLE:

NORTH AREA SOIL SAMPLE LOCATIONS

REPORT: **FINAL BASELINE ECOLOGICAL RISK ASSESSMENT**

SITE: **GULFCO MARINE MAINTENANCE**
FREESTPORT, BRAZORIA COUNTY, TEXAS

PROJECT: **41568745** DRAWN: **ZGK/NAB**

DATE: **SEPT., 2011** CHECKED: **DL**

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URS

10550 RICHMOND AVE., SUITE 155
HOUSTON, TEXAS 77042
PH: 713-914-6699
FAX: 713-914-8404

EXPLANATION

Gulfco Marine Maintenance Site Boundary (approximate)

● BERA Sediment Sample Location

■ BERA Sediment Reference Sample Location

Notes

J - Estimated Value
DW - Dry Weight

Results for duplicate samples are separated by a "/"

= High Concentration
= Mid Concentration
= Low Concentration

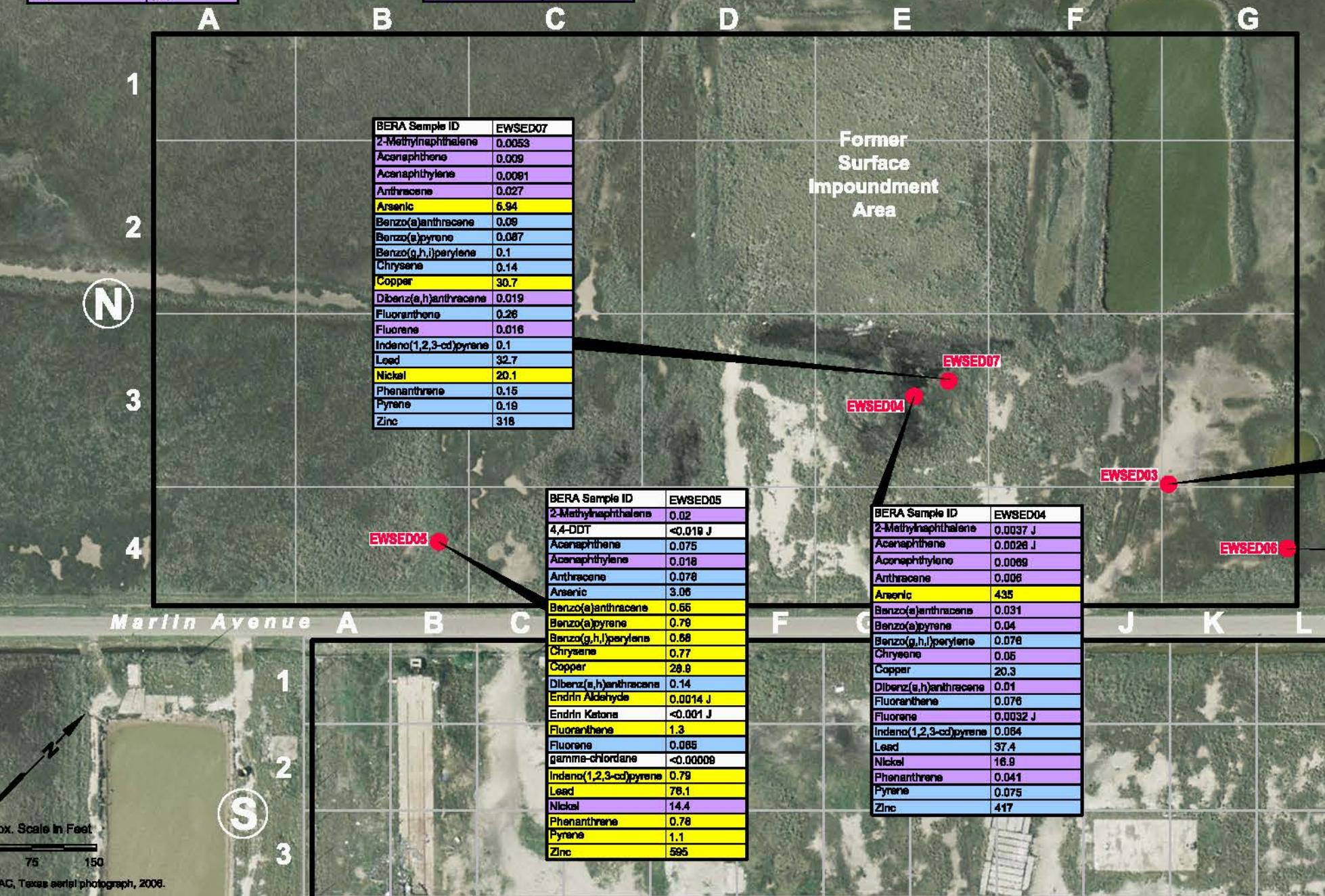
All Concentrations in mg/kg DW

BERA Sample ID	EWSED08
2-Methylnaphthalene	0.001 J
4,4-DDT	0.0014
Acenaphthene	<0.00088
Acenaphthylene	<0.00069
Anthracene	0.001 J
Arsenic	2.92
Benz(a)anthracene	0.011
Benz(a)pyrene	0.014
Benz(g,h,i)perylene	0.017
Chrysene	0.017
Copper	15.8
Dibenz(a,h)anthracene	0.003 J
Endrin Aldehyde	0.00062 J
Endrin Ketone	<0.00012
Fluoranthene	0.031
Fluorene	0.00082 J
gamma-chlordane	<0.00012 J
Indeno(1,2,3-cd)pyrene	0.019
Lead	19.8
Nickel	16.3
Phenanthrene	0.015
Pyrene	0.027
Zinc	94.3

BERA Sample ID	EWSED09
2-Methylnaphthalene	0.00061 J
4,4-DDT	0.0016
Acenaphthene	<0.00076
Acenaphthylene	<0.00069
Anthracene	<0.00058
Arsenic	2.58
Benz(a)anthracene	0.0024 J
Benz(a)pyrene	0.0027 J
Benz(g,h,i)perylene	0.0032 J
Chrysene	0.004 J
Copper	11.7
Dibenz(a,h)anthracene	<0.0008
Endrin Aldehyde	<0.00012
Endrin Ketone	<0.000083
Fluoranthene	0.0055
Fluorene	<0.00081
gamma-chlordane	<0.00023 J
Indeno(1,2,3-cd)pyrene	0.0032 J
Lead	17.4
Nickel	16.5
Phenanthrene	0.0024 J
Pyrene	0.0044 J
Zinc	88.3

BERA Sample ID	EWSED01
2-Methylnaphthalene	0.0036 J
4,4-DDT	<0.001 J
Acenaphthene	0.0046 J
Acenaphthylene	0.057
Anthracene	0.043
Arsenic	2.97
Benz(a)anthracene	<0.068 J
Benz(a)pyrene	0.24
Benz(g,h,i)perylene	0.63
Chrysene	0.39
Copper	20.8
Dibenz(a,h)anthracene	0.17
Endrin Aldehyde	0.0007 J
Endrin Ketone	<0.000093
Fluoranthene	0.038
Fluorene	0.018
gamma-chlordane	<0.00009
Indeno(1,2,3-cd)pyrene	0.22
Lead	17.2
Nickel	18.9
Phenanthrene	0.032
Pyrene	0.091
Zinc	115

BERA Sample ID	EWSED02
2-Methylnaphthalene	0.002 J/0.0026 J
4,4-DDT	<0.00017/<0.00017
Acenaphthene	0.0018 J/0.0013 J
Acenaphthylene	0.041/0.03
Anthracene	0.032/0.024
Arsenic	2.4/2.51
Benz(a)anthracene	<0.043 J/<0.00072
Benz(a)pyrene	0.12/0.087
Benz(g,h,i)perylene	0.46/0.38
Chrysene	0.62/0.49
Copper	13.3/14.6
Dibenz(a,h)anthracene	0.11/0.094
Endrin Aldehyde	<0.00012/<0.001 J
Endrin Ketone	<0.00093/<0.011 J
Fluoranthene	0.023/0.019
Fluorene	0.013/0.011
gamma-chlordane	<0.00009/<0.00009
Indeno(1,2,3-cd)pyrene	0.19/0.18
Lead	12/14.7
Nickel	15.6/17.3
Phenanthrene	0.016/0.014
Pyrene	0.14/0.11
Zinc	70/88.1



TITLE: WETLAND SEDIMENT SAMPLE LOCATIONS

REPORT: FINAL BASELINE ECOLOGICAL RISK ASSESSMENT

SITE: GULFCO MARINE MAINTENANCE FREEPORT, BRAZORIA COUNTY, TEXAS

PROJECT: 41568745 DRAWN: ZGK/NAB FIGURE: 63

DATE: SEPT., 2011 CHECKED: DL

URS 10550 RICHMOND AVE., SUITE 155 HOUSTON, TEXAS 77042 PH: 713-914-6698 FAX: 713-914-8404

EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- BERA Sediment Sample Location

Notes
 J - Estimated Value
 DW - Dry Weight
 Results for duplicate samples are separated by a "/"

= High Concentration
 = Mid Concentration
 = Low Concentration

All Concentrations in mg/kg DW



Approx. Scale in Feet
 0 60 120

Source of photo: H-GAC, Texas aerial photograph, 2008.

TITLE:

INTRACOASTAL WATERWAY SEDIMENT SAMPLE LOCATIONS

REPORT:
FINAL BASELINE ECOLOGICAL RISK ASSESSMENT

SITE: **GULFCO MARINE MAINTENANCE**
FREEPORT, BRAZORIA COUNTY, TEXAS

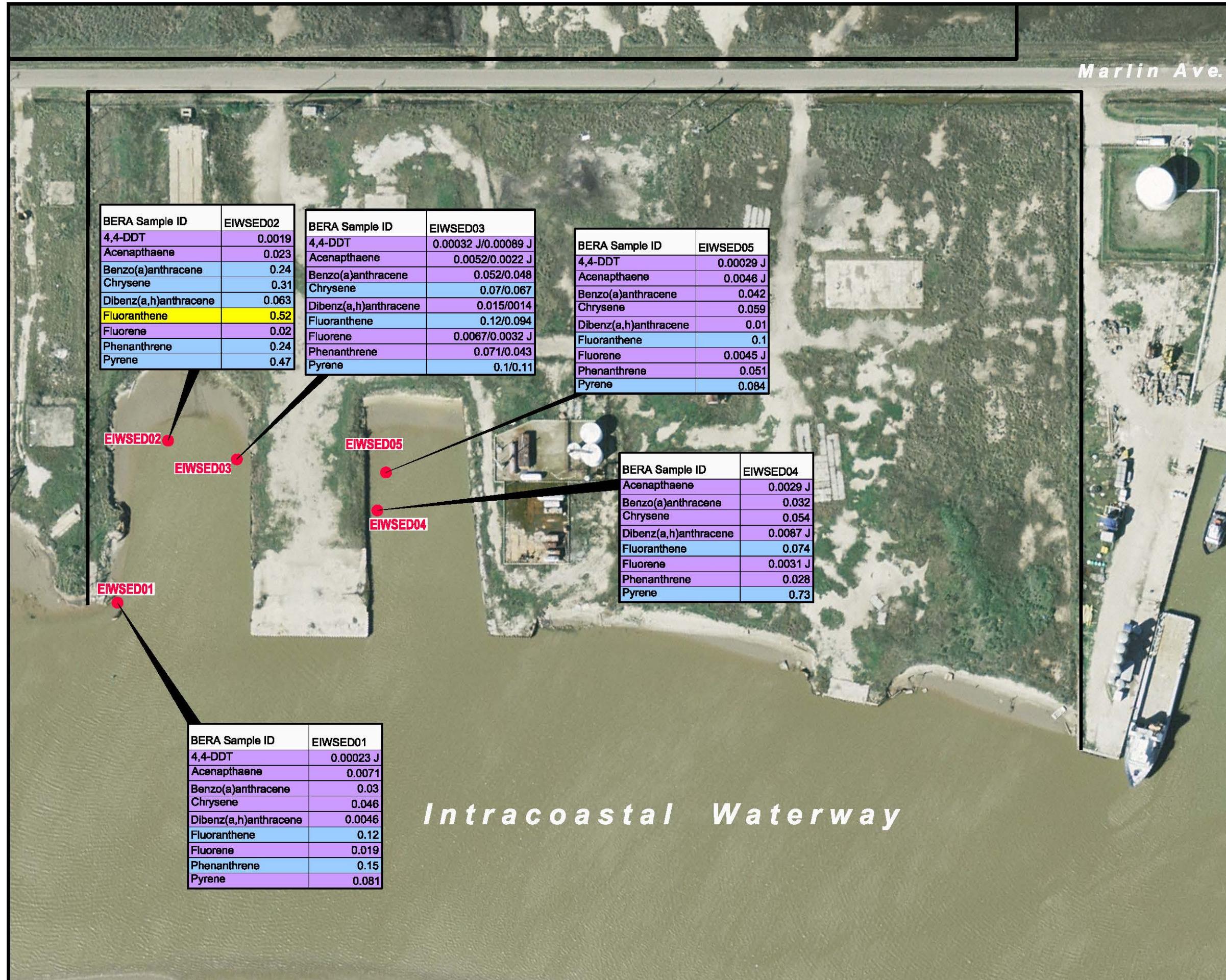
PROJECT: 41568745 DRAWN: ZGK/NAB FIGURE:

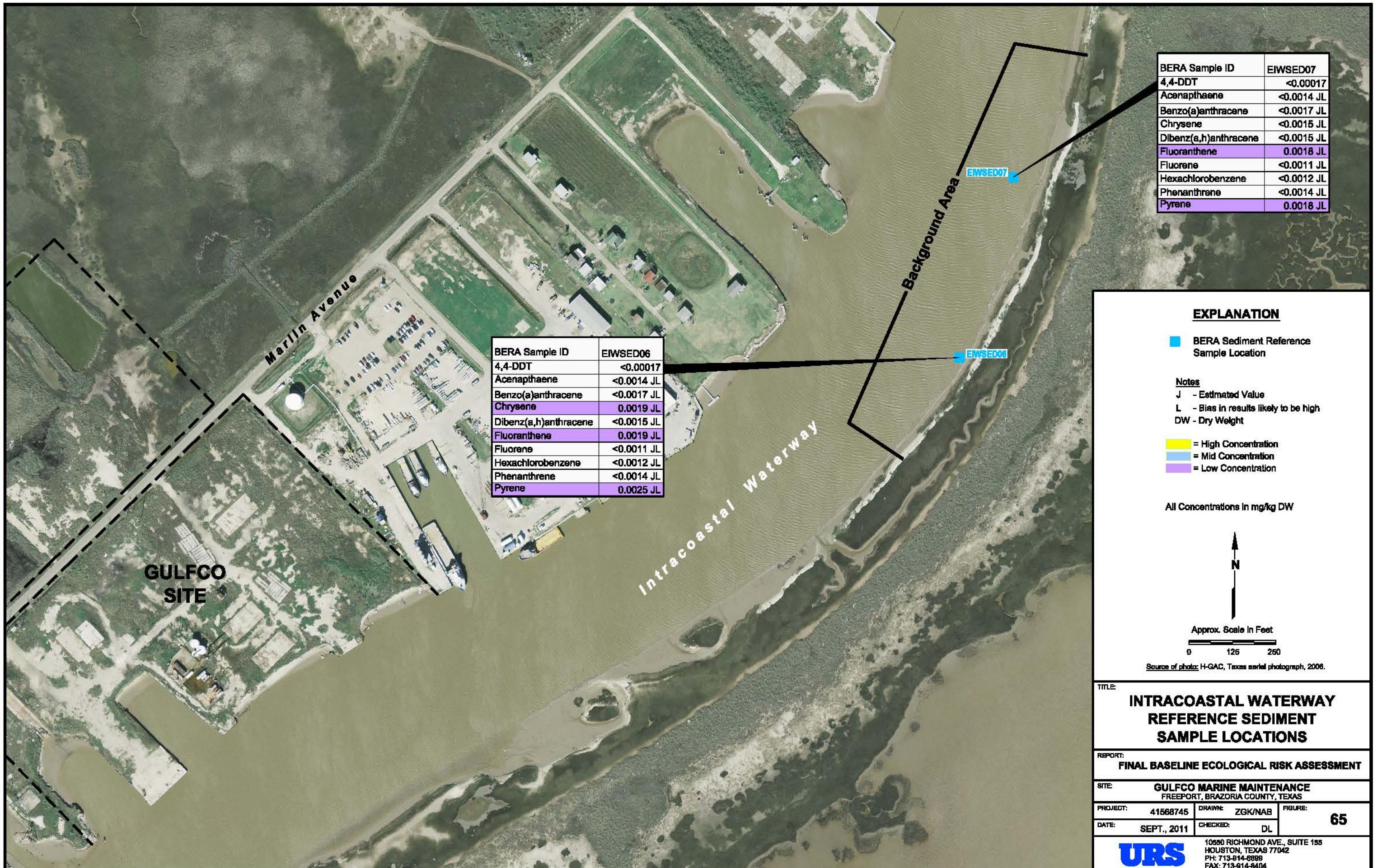
DATE: SEPT., 2011 CHECKED: DL

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URS

10550 RICHMOND AVE., SUITE 155
HOUSTON, TEXAS 77042
PH: 713-914-6699
FAX: 713-914-8404







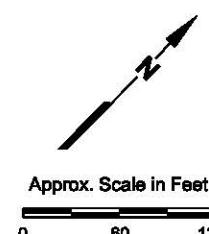
EXPLANATION

- Gulfco Marine Maintenance Site Boundary (approximate)
- BERA Surface Water Sample Location
- BERA Surface Water Reference Sample Location

Notes

J - Estimated Value

All Concentrations in mg/L



Source of photo: H-GAC, Texas aerial photograph, 2008.

TITLE:	WETLAND SURFACE WATER SAMPLE LOCATIONS		
REPORT:	FINAL BASELINE ECOLOGICAL RISK ASSESSMENT		
SITE:	GULFCO MARINE MAINTENANCE FREEPORT, BRAZORIA COUNTY, TEXAS		
PROJECT:	41568745	DRAWN:	ZGK/NAB
DATE:	SEPT., 2011	CHECKED:	DL
URS 10550 RICHMOND AVE., SUITE 155 HOUSTON, TEXAS 77042 PH: 713-914-6699 FAX: 713-914-8404			

Table 1
List of Applicable and Appropriate Requirements (ARARs) for the Gulfco Marine Maintenance Superfund Site

ARAR Type	Requirements	Remedial Alternative Considerations
Chemical-Specific	RCRA Hazardous Waste Criteria - 40 CFR 261 Subpart C and Texas Waste Classification Rules - 30 TAC 335 Subchapter R	Waste classification determination (i.e., hazardous or non-hazardous Class 1, 2 or 3) for any wastes managed at an off-site treatment, storage or disposal facility.
	Texas Risk Reduction (TRRP) Protective Concentration Levels (PCLs) - 30 TAC Chapter 350	Specifies criteria for the investigation/remediation of the Site and used to define the extent of contamination. Not used in place of site-specific Baseline Human Health Assessment (BHHRA) and Baseline Ecological Risk Assessment (BERA) to establish site-specific risk levels (and Remedial Action Objectives) for those areas of the Site that pose risk to human health or the environment.
	Fish-Only Human Health Criteria Texas Surface Water Quality Standards (TSWQS) - 30 TAC §307.6(d)(2)(B)	Specifies criteria for surface water concentrations in the Intracoastal Waterway adjacent to the Site in the event affected groundwater discharges to the Intracoastal Waterway.
Location-Specific	Wetlands - Clean Water Act Section 404(b)(1) promulgated as 40 CFR 230.10 and 40 CFR 6.302(a), Executive Order 11990	<ul style="list-style-type: none"> • 40 CFR 230.10 - Prohibits discharge of dredged or fill material to wetlands, subject to consideration of practicable alternatives and the use of mitigation measures. • 40 CFR 6.302(a), Executive Order 11990 - Requires that any actions performed within wetland areas minimize the destruction, loss or degradation of wetlands.
	Critical Habitat for Endangered or Threatened Species - Fish and Wildlife Coordination Act, Endangered Species Act, 40 CFR §6.302(h), 40 CFR §230.30, 50 CFR Part 402 and 31 TAC §501.23(a)	<p>Governs the protection of critical habitat for endangered or threatened species via the following regulations:</p> <ul style="list-style-type: none"> • Endangered Species Act - Prohibits federal agencies' programs (e.g., CERCLA) from jeopardizing threatened or endangered species or adversely modifying habitats essential to their survival. • 40 CFR §6.302(h) - Responsible party must identify designated endangered or threatened species or their habitat that may be affected by the remedial action. • 40 CFR §230.30 and 50 CFR Part 402 - Formal consultation with the United States Fish and Wildlife Services (USFWS), Texas Parks and Wildlife Department (TPWD) and the National Marine Fisheries Service (NMFS) must be undertaken if a listed species or their habitat may be affected by a remedial action. If the consultation reveals that the activity may jeopardize a listed species or habitat, mitigation measures need to be considered. • 31 TAC §501.23(a)(7)(A) - Prohibits development in critical areas if the activity will jeopardize the continued existence of endangered or threatened species or will result in the destruction or adverse modification of their habitat. Also specifies compensatory mitigation.

Table 1
List of Applicable and Appropriate Requirements (ARARs) for the Gulfco Marine Maintenance Superfund Site

ARAR Type	Requirements	Remedial Alternative Considerations
Location-Specific (cont'd.)	Coastal Zones - Coastal Zone Management Act, 15 CFR Part 923 and 31 TAC Chapter 501	<ul style="list-style-type: none"> • Coastal Zone Management Act - Requires the development and implementations of state programs, in conformity with EPA guidance, to manage the land and water resources of the coastal zone, including ecological, cultural, historic and aesthetic values. • 15 CFR Part 923 - Provides criteria for National Oceanic and Atmospheric Administration (NOAA) approval of state programs. • 31 TAC Chapter 501 - Prohibits development in critical areas if significant degradation will occur, including the threatening of an endangered or threatened species or its habitat, violation of any surface water standards or toxic effluent standards, adversely effecting human health or welfare (including effects on fish, shellfish, wildlife and the consumption of fish and wildlife), adversely effecting aquatic ecosystems, or adversely effecting generally accepted recreational aesthetics or economic value of the critical area.
	Floodplains - 40 CFR 264.18(b) and 40 CFR 6.302(b), Executive Order 11988	<ul style="list-style-type: none"> • 40 CFR 264.18(b) - Remedial alternatives involving on-site treatment, storage or disposal facilities for RCRA hazardous waste at the Site are required to be designed, constructed, operated and maintained to prevent washout of hazardous waste by the 100-year flood. • 40 CFR 6.302(b), Executive Order 11988 - Any actions performed within the floodplain must avoid adverse effects, minimize potential harm and restore and preserve natural and beneficial values of the floodplain.

Table 1
List of Applicable and Appropriate Requirements (ARARs) for the Gulfco Marine Maintenance Superfund Site

ARAR Type	Requirements	Remedial Alternative Considerations
Action-Specific	RCRA Unit Specific Standards - 40 CFR 264.1(g), 40 CFR 260.10 and Clean Water Act Section 402 or 307(b)	<p>A potential groundwater treatment system at the Site would not be subject to the unit-specific RCRA design and operating standards for units that treat hazardous wastes because it is a wastewater treatment unit which is exempt under 40 CFR 264.1(g). A wastewater treatment unit is defined by 40 CFR 260.10 as a "device which: (1) is part of a wastewater treatment facility this is subject to regulation under either Section 402 or 307(b) of the Clean Water Act; (2) receives and treats or stores an influent wastewater that is a hazardous waste...; and (3) meets the definition of a tank system.</p> <p>A potential groundwater treatment system at the Site meets these criteria since the system would: (1) discharge to the City of Freeport POTW through an industrial discharge permit and would be subject to regulation under the Clean Water Act (i.e., through the industrial pre-treatment discharge limitations established by the POTW); (2) the groundwater treatment system would be treating an influent hazardous wastewater if the groundwater were classified as a hazardous waste due to the toxicity characteristic for one or more contaminants; and (3) the treatment system would meet the definition of a tank in 40 CFR 260.10: "a stationary device, designed to contain an accumulation of hazardous waste which is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) which provide structural support."</p>

Table 1
List of Applicable and Appropriate Requirements (ARARs) for the Gulfco Marine Maintenance Superfund Site

ARAR Type	Requirements	Remedial Alternative Considerations
Action-Specific (cont'd.)	Air Emissions - 40 CFR Part 60, 40 CFR Parts 61 and 63, 40 CFR Part 264, Subparts AA, BB and CC/30 TAC 335.152 (a)(17) & (18) and 30 TAC Chapter 106, Subchapter X	<p>A potential groundwater treatment system would use an air stripper to remove volatile organic chemicals (VOCs) from the groundwater. The air emissions from this process may be subject to Federal and state air quality regulations. The following regulations were considered:</p> <ul style="list-style-type: none"> • New Source Performance Standards (NSPS) (40 CFR Part 60) - Groundwater treatment system not regulated by NSPS; • National Emission Standards for Hazardous Air Pollutants (NESHAPs) (40 CFR Parts 61 and 63) - Groundwater treatment system not regulated by NESHAPs; • RCRA Air Emissions Requirements (40 CFR Part 264, Subparts AA, BB, and CC/30 TAC 335.152(a)(17) & (18)) - Groundwater treatment system exempt from RCRA; • Control of Air Pollution from Volatile Organic Compounds (30 TAC Chapter 115) - Groundwater treatment system likely exempt from the control and monitoring requirements of these regulations due to the relatively small size of the equipment and anticipated low emission rates (based on groundwater extraction/treatment flow rate and VOC concentrations in groundwater). Specifically, storage tanks with less than 1,000 gallons capacity are exempt from control requirements under §115.112(c)(1), Table I(b) and vent gas streams having a combined weight of VOCs less than or equal to 100 pounds in any continuous 24-hour period are exempt from control requirements of §115.121(a)(1), (see §115.127(a)(2)(A)). • Permits by Rule – Waste Processes and Remediation (30 TAC Chapter 106, Subchapter X) - 30 TAC §106.533 provides State Permit By Rule regulations for remediation processes that could apply to a potential groundwater treatment system. Emission rate limits (in lbs/hr) are described by compounds that are required to qualify for permit by rule and specifies the performance requirements for emissions control devices under a permit by rule.
	Effluent Discharge - City of Freeport Code of Ordinances, Chapter 51	<p>The effluent from a potential groundwater extraction and treatment system could be discharged to the City of Freeport POTW. The City's industrial discharge rates and ordinances would apply to this discharge. As such an industrial wastewater discharge permit is required by the City as discharge limits, monitoring and reporting would be subject to City standards described in Chapter 51 of the City of Freeport Code of Ordinances.</p>

Table 1
List of Applicable and Appropriate Requirements (ARARs) for the Gulfco Marine Maintenance Superfund Site

ARAR Type	Requirements	Remedial Alternative Considerations
Action-Specific (cont'd.)	Landfill Cap Construction - 30 TAC §330.457 (3)(b)	<p>The former surface impoundments were closed under a Texas Water Commission (TWC)-approved plan in 1982. Requirements that may potentially be considered relevant and appropriate to the existing cap include 30 TAC §330.457 (3)(b) which requires Class I industrial solid waste "be covered with a four-foot layer of compacted clay-rich soil", which is identified as having a coefficient of permeability no greater than 1×10^{-7} cm/sec. The TWC-approved closure plan implemented in 1982 provided for a clay thickness of three feet. Soil borings drilled through the cap during the RI indicated clay thicknesses ranging from 2.5 feet to over 3.5 feet. Maintenance activities to be implemented as part of the O&M plan to be developed for the cap will add another 0.5 feet of clay to the cap, thus assuring a cap thickness of at least 3.0 feet and, in some instances, more than 4.0 feet. As detailed in the RI Report, laboratory-measured hydraulic conductivities for the existing cap material ranged from 5.0×10^{-9} cm/sec to 3.5×10^{-8} cm/sec. These values are approximately one-third or less of the 1×10^{-7} cm/sec value specified in §330.457(3)(b), thus indicating that the three-foot thickness of the existing cap can be considered functionally equivalent to a four-feet thick cap constructed of clay with 1×10^{-7} cm/sec hydraulic conductivity.</p>

TABLE 2 - ALTERNATIVE 2 PRELIMINARY COST PROJECTION

Component No.	Component Description	Key Assumptions	Quantity	Unit	Unit Cost	Estimated Cost One-time	Annual O&M
1	Institutional Controls Deed Recordation/Restrictive Covenant	Includes modifacaton of current restrictive covenants.	1	LS		\$10,000	-
	Institutional Controls Subtotal					\$10,000	\$0
2	Operation and Maintenance Planning O&M Plan Preparation	Includes preparation of plan for cap inspection/repair and groundwater monitoring.	1	LS		\$10,000	-
	Operation and Maintenance Planning Subtotal					\$10,000	\$0
3	Groundwater Monitoring Groundwater Monitoring	Assumes annual sampling of 9 Zone A wells, 5 Zone B wells, 1 Zone C well with analyses for VOCs. Assumes repair of well head/protective casing required at 2 wells per year. Assumes plugging of 20 Zone A wells (wells in South Area and MW05).	1 2 1	LS wells LS	\$500	\$12,000	\$12,000
	Well Repair/Replacement					\$1,000	\$1,000
	Plugging/abandonment of monitoring wells no longer in use.					\$10,000	-
	Groundwater Monitoring Subtotal					\$10,000	\$13,000
	Subtotal					\$30,000	\$13,000
	Contingency					\$6,000	\$2,600
	Subtotal with Contingency					\$36,000	\$15,600
	Present Worth of Annual Costs					\$193,600	
	Total Preliminary Estimated Present Worth Cost					\$230,000	
	Total Preliminary Estimated Undiscounted Cost					\$500,000	

Notes:

¹LS = Lump Sum Estimate

TABLE 3 - GROUNDWATER EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 18 of RI/FS Work Plan ⁽²⁾			Extent Evaluation Comparison Value
	$GW_{GW_{Class\ 3}}^{(3)}$	$Air\ GW_{Inh-V}^{(4)}$	TCEQ Ecological Benchmark for Water ⁽⁵⁾	
METALS				
Aluminum	7.3E+03	---	---	7.3E+03
Antimony	6.0E-01	---	---	6.0E-01
Arsenic	1.0E+00	---	7.8E-02	7.8E-02
Barium	2.0E+02	---	2.5E+01	2.5E+01
Beryllium	4.0E-01	---	---	4.0E-01
Boron	1.5E+03	---	---	1.5E+03
Cadmium	5.0E-01	---	1.0E-02	1.0E-02
Chromium	1.0E+01	---	1.0E-01	1.0E-01
Chromium (VI)	1.0E+01	---	5.0E-02	5.0E-02
Cobalt	2.2E+00	---	---	2.2E+00
Copper	1.3E+02	---	3.6E-03	3.6E-03
Ferric Iron	---	---	---	NV
Iron	---	---	---	NV
Lead	1.5E+00	---	5.3E-03	5.3E-03
Lithium	1.5E+01	---	---	1.5E+01
Manganese	1.0E+03	---	---	1.0E+03
Mercury	2.0E-01	1.3E+00	1.1E-03	1.1E-03
Molybdenum	3.7E+01	---	---	3.7E+01
Nickel	1.5E+02	---	1.3E-02	1.3E-02
Selenium	5.0E+00	---	1.4E-01	1.4E-01
Silver	3.7E+01	---	1.9E-04	1.9E-04
Strontium	4.4E+03	---	---	4.4E+03
Thallium	2.0E-01	---	2.1E-02	2.1E-02
Tin	4.4E+03	---	---	4.4E+03
Titanium	3.7E+06	---	---	3.7E+06
Vanadium	5.1E+01	---	---	5.1E+01
Zinc	2.2E+03	---	8.4E-02	8.4E-02
PESTICIDES				
4,4'-DDD	8.5E-01	---	2.5E-05	2.5E-05
4,4'-DDE	6.0E-01	---	1.4E-04	1.4E-04
4,4'-DDT	6.0E-01	1.4E+02	1.0E-06	1.0E-06
Aldrin	1.2E-02	9.6E-01	1.3E-04	1.3E-04
alpha-BHC	3.2E-02	3.3E+01	2.5E-02	2.5E-02
alpha-Chlordane	5.8E-01	3.3E+01	---	5.8E-01
beta-BHC	1.1E-01	2.5E+02	---	1.1E-01
delta-BHC	1.1E-01	7.9E+01	---	1.1E-01
Dieldrin	1.3E-02	2.8E+01	2.0E-06	2.0E-06
Endosulfan I	1.5E+01	1.6E+02	9.0E-06	9.0E-06
Endosulfan II	4.4E+01	---	9.0E-06	9.0E-06
Endosulfan sulfate	4.4E+01	---	9.0E-06	9.0E-06
Endrin	2.0E-01	5.9E+02	2.0E-06	2.0E-06
Endrin aldehyde	2.2E+00	---	---	2.2E+00
Endrin ketone	2.2E+00	5.1E+02	---	2.2E+00
gamma-BHC (Lindane)	2.0E-02	1.5E+03	1.6E-05	1.6E-05
gamma-Chlordane	5.8E-01	3.3E+01	---	5.8E-01
Heptachlor	4.0E-02	1.4E+00	4.0E-06	4.0E-06
Heptachlor epoxide	2.0E-02	2.6E+01	3.6E-06	3.6E-06
Methoxychlor	4.0E+00	6.3E+03	3.0E-05	3.0E-05
Toxaphene	3.0E-01	3.9E+02	2.0E-07	2.0E-07

TABLE 3 - GROUNDWATER EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 18 of RI/FS Work Plan ⁽²⁾			Extent Evaluation Comparison Value
	$GW_{Class\ 3}^{(3)}$	$Air\ GW_{Inh-V}^{(4)}$	TCEQ Ecological Benchmark for Water ⁽⁵⁾	
PCBs	5.0E-02	6.4E-01	3.0E-05	3.0E-05
Aroclor-1016	---	---	---	NV
Aroclor-1221	---	---	---	NV
Aroclor-1232	---	---	---	NV
Aroclor-1242	---	---	---	NV
Aroclor-1248	---	---	---	NV
Aroclor-1254	---	---	---	NV
Aroclor-1260	---	---	---	NV
VOCs				
1,1,1,2-Tetrachloroethane	7.9E+00	2.4E+01	---	7.9E+00
1,1,1-Trichloroethane	2.0E+01	7.2E+03	1.6E+00	1.6E+00
1,1,2,2-Tetrachloroethane	1.0E+00	9.6E+00	4.5E-01	4.5E-01
1,1,2-Trichloroethane	5.0E-01	1.7E+01	2.8E-01	2.8E-01
1,1-Dichloroethane	1.5E+03	1.3E+03	---	1.3E+03
1,1-Dichloroethene	7.0E-01	3.0E+02	1.3E+01	7.0E-01
1,1-Dichloropropene	2.0E+00	4.2E+00	---	2.0E+00
1,2,3-Trichloropropane	2.9E-02	1.2E+03	---	2.9E-02
1,2,4-Trichlorobenzene	7.0E+00	2.8E+03	2.2E-02	2.2E-02
1,2,4-Trimethylbenzene	3.7E+02	3.4E+01	2.2E-01	2.2E-01
1,2-Dibromo-3-chloropropane	2.0E-02	1.3E-01	---	2.0E-02
1,2-Dibromoethane	5.0E-03	1.2E+00	---	5.0E-03
1,2-Dichlorobenzene	6.0E+01	2.1E+02	9.9E-02	9.9E-02
1,2-Dichloroethane	5.0E-01	7.2E+00	5.7E+00	5.0E-01
1,2-Dichloroethene(Total)	---	---	6.8E-01	6.8E-01
1,2-Dichloropropane	5.0E-01	2.1E+01	2.4E+00	5.0E-01
1,3,5-Trimethylbenzene	3.7E+02	2.3E+01	---	2.3E+01
1,3-Dichlorobenzene	2.2E+02	3.4E+01	1.4E-01	1.4E-01
1,3-Dichloropropane	2.0E+00	5.5E+01	---	2.0E+00
1,4-Dichlorobenzene	7.5E+00	6.5E+02	9.9E-02	9.9E-02
2,2-Dichloropropane	3.0E+00	1.0E+01	---	3.0E+00
2-Butanone	4.4E+03	4.9E+05	---	4.4E+03
2-Chloroethylvinyl ether	1.9E-01	3.5E+00	---	1.9E-01
2-Chlorotoluene	1.5E+02	1.4E+03	---	1.5E+02
2-Hexanone	4.4E+02	2.8E+02	---	2.8E+02
4-Chlorotoluene	5.1E+02	1.4E+00	---	1.4E+00
4-Isopropyltoluene	7.3E+02	8.3E+02	---	7.3E+02
4-Methyl-2-pentanone	5.8E+02	1.2E+05	6.2E+01	6.2E+01
Acetone	6.6E+03	4.6E+04	2.8E+02	2.8E+02
Acrolein	3.7E+00	1.3E+01	1.0E-02	1.0E-02
Acrylonitrile	3.8E-01	1.3E+01	2.9E-01	2.9E-01
Benzene	5.0E-01	3.9E+01	1.1E-01	1.1E-01

TABLE 3 - GROUNDWATER EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 18 of RI/FS Work Plan ⁽²⁾			Extent Evaluation Comparison Value
	$GW_{Class\ 3}^{(3)}$	$Air\ GW_{Inh-V}^{(4)}$	TCEQ Ecological Benchmark for Water ⁽⁵⁾	
Bromobenzene	1.5E+02	6.8E+01	---	6.8E+01
Bromodichloromethane	3.3E+00	---	---	3.3E+00
Bromoform	2.6E+01	1.1E+03	1.2E+00	1.2E+00
Bromomethane	1.0E+01	8.3E+00	1.2E+00	1.2E+00
Butanol	7.3E+02	3.6E+04	---	7.3E+02
Carbon disulfide	7.3E+02	8.8E+02	---	7.3E+02
Carbon tetrachloride	5.0E-01	1.7E+00	1.5E+00	5.0E-01
Chlorobenzene	1.0E+01	2.1E+02	1.1E-01	1.1E-01
Chloroethane	2.9E+03	2.1E+04	---	2.9E+03
Chloroform	7.3E+01	4.3E+00	4.1E+00	4.1E+00
Chloromethane	1.6E+01	7.9E+00	1.4E+01	7.9E+00
cis-1,2-Dichloroethene	7.0E+00	2.9E+03	---	7.0E+00
cis-1,3-Dichloropropene	3.8E-01	4.2E+01	---	3.8E-01
Cyclohexane	3.7E+04	1.1E+03	---	1.1E+03
Dibromochloromethane	2.4E+00	---	---	2.4E+00
Dibromomethane	2.7E+01	1.4E+02	---	2.7E+01
Dichlorodifluoromethane	1.5E+03	1.3E+02	---	1.3E+02
Ethylbenzene	7.0E+01	2.8E+03	2.5E-01	2.5E-01
Hexachlorobutadiene	2.6E+00	1.9E+00	3.2E-04	3.2E-04
Isopropylbenzene (Cumene)	7.3E+02	8.0E+02	---	7.3E+02
Methyl acetate	7.3E+03	2.4E+04	---	7.3E+03
Methyl iodide	1.0E+01	3.1E+01	---	1.0E+01
Methylcyclohexane	3.7E+04	2.6E+02	---	2.6E+02
Methylene chloride	5.0E-01	2.8E+02	5.4E+00	5.0E-01
Naphthalene	1.5E+02	5.7E+01	1.3E-01	1.3E-01
n-Butylbenzene	2.9E+02	6.6E+02	---	2.9E+02
n-Propylbenzene	2.9E+02	1.1E+03	---	2.9E+02
o-Xylene	1.0E+03	2.2E+04	---	1.0E+03
sec-Butylbenzene	2.9E+02	7.0E+02	---	2.9E+02
Styrene	1.0E+01	2.7E+03	4.6E-01	4.6E-01
tert-Butyl methyl ether (MTBE)	7.3E+01	8.8E+02	---	7.3E+01
tert-Butylbenzene	2.9E+02	4.5E+02	---	2.9E+02
Tetrachloroethene	5.0E-01	1.1E+02	1.5E+00	5.0E-01
Toluene	1.0E+02	1.2E+04	4.8E-01	4.8E-01
trans-1,2-Dichloroethene	1.0E+01	1.4E+02	---	1.0E+01
trans-1,3-Dichloropropene	2.0E+00	4.1E+01	---	2.0E+00
trans-1,4-Dichloro-2-butene	---	2.3E-01	---	2.3E-01
Trichloroethene	5.0E-01	2.1E+01	9.7E-01	5.0E-01
Trichlorofluoromethane	2.2E+03	7.4E+02	---	7.4E+02
Trichlorotrifluoroethane	2.2E+05	1.7E+03	---	1.7E+03
Vinyl acetate	7.3E+03	2.6E+03	---	2.6E+03
Vinyl chloride	2.0E-01	8.3E-01	---	2.0E-01
Xylene (total)	1.0E+03	1.9E+03	8.5E-01	8.5E-01

TABLE 3 - GROUNDWATER EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 18 of RI/FS Work Plan ⁽²⁾			Extent Evaluation Comparison Value
	$^{GW}GW_{Class\ 3}^{(3)}$	$^{Air}GW_{Inh-V}^{(4)}$	TCEQ Ecological Benchmark for Water ⁽⁵⁾	
SVOCs				
1,2Diphenylhydrazine/Azobenzen	1.9E+00	1.5E+02	---	1.9E+00
2,4,5-Trichlorophenol	7.3E+02	8.2E+04	1.2E-02	1.2E-02
2,4,6-Trichlorophenol	7.3E+00	1.1E+04	6.1E-02	6.1E-02
2,4-Dichlorophenol	2.2E+01	9.8E+04	---	2.2E+01
2,4-Dimethylphenol	1.5E+02	3.0E+04	---	1.5E+02
2,4-Dinitrophenol	1.5E+01	---	1.3E+00	1.3E+00
2,4-Dinitrotoluene	3.0E-01	2.2E+02	---	3.0E-01
2,6-Dinitrotoluene	3.0E-01	5.7E+02	---	3.0E-01
2-Chloronaphthalene	5.8E+02	---	---	5.8E+02
2-Chlorophenol	3.7E+01	1.1E+04	2.7E-01	2.7E-01
2-Methylnaphthalene	2.9E+01	---	3.0E-02	3.0E-02
2-Nitroaniline	2.2E+00	7.2E+02	---	2.2E+00
2-Nitrophenol	1.5E+01	1.2E+04	1.5E+00	1.5E+00
3,3'-Dichlorobenzidine	4.5E-01	---	3.7E-02	3.7E-02
3-Nitroaniline	2.2E+00	1.3E+04	---	2.2E+00
4,6-Dinitro-2-methylphenol	7.3E-01	1.5E+03	---	7.3E-01
4-Bromophenyl phenyl ether	1.4E-02	3.4E-01	---	1.4E-02
4-Chloro-3-methylphenol	3.7E+01	1.1E+05	---	3.7E+01
4-Chloroaniline	1.0E+00	1.2E+04	---	1.0E+00
4-Chlorophenyl phenyl ether	1.4E-02	2.7E-01	---	1.4E-02
4-Nitroaniline	1.0E+01	2.6E+04	---	1.0E+01
4-Nitrophenol	1.5E+01	4.3E+03	3.6E-01	3.6E-01
Acenaphthene	4.4E+02	---	4.0E-02	4.0E-02
Acenaphthylene	4.4E+02	---	---	4.4E+02
Acetophenone	7.3E+02	2.5E+04	---	7.3E+02
Aniline	3.6E+01	2.0E+03	---	3.6E+01
Anthracene	2.2E+03	---	1.8E-04	1.8E-04
Atrazine (Aatrex)	3.0E-01	3.3E+04	---	3.0E-01
Benzaldehyde	7.3E+02	9.4E+02	---	7.3E+02
Benzidine	8.9E-04	1.4E+00	---	8.9E-04
Benzo(a)anthracene	2.8E-01	4.4E+02	---	2.8E-01
Benzo(a)pyrene	2.0E-02	8.4E+01	---	2.0E-02
Benzo(b)fluoranthene	2.8E-01	3.5E+02	---	2.8E-01
Benzo(g,h,i)perylene	2.2E+02	---	---	2.2E+02
Benzo(k)fluoranthene	2.8E+00	2.1E+04	---	2.8E+00
Benzoic acid	2.9E+04	1.9E+04	---	1.9E+04
Benzyl alcohol	3.7E+03	1.7E+05	---	3.7E+03
Biphenyl	3.7E+02	3.7E+01	---	3.7E+01

TABLE 3 - GROUNDWATER EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 18 of RI/FS Work Plan ⁽²⁾			Extent Evaluation Comparison Value
	^{GW} GW _{Class 3} ⁽³⁾	^{Air} GW _{Inh-V} ⁽⁴⁾	TCEQ Ecological Benchmark for Water ⁽⁵⁾	
Bis(2-Chloroethoxy)methane	1.9E-01	1.7E+01	---	1.9E-01
Bis(2-Chloroethyl)ether	1.9E-01	2.0E+01	---	1.9E-01
Bis(2-Chloroisopropyl)ether	2.9E+00	1.9E+02	---	2.9E+00
Bis(2-Ethylhexyl)phthalate	6.0E-01	---	---	6.0E-01
Butyl benzyl phthalate	1.1E+02	2.2E+04	1.5E-01	1.5E-01
Caprolactam	3.7E+03	4.4E+03	---	3.7E+03
Carbazole	1.0E+01	---	---	1.0E+01
Chrysene	2.8E+01	1.3E+05	---	2.8E+01
Dibenz(a,h)anthracene	2.8E-02	2.3E+02	---	2.8E-02
Dibenzofuran	2.9E+01	---	6.5E-02	6.5E-02
Diethyl phthalate	5.8E+03	2.5E+04	4.4E-01	4.4E-01
Dimethyl phthalate	5.8E+03	1.9E+04	5.8E-01	5.8E-01
Di-n-butyl phthalate	7.3E+02	1.3E+04	5.0E-03	5.0E-03
Di-n-octyl phthalate	1.5E+02	1.8E+03	---	1.5E+02
Fluoranthene	2.9E+02	---	3.0E-03	3.0E-03
Fluorene	2.9E+02	---	5.0E-02	5.0E-02
Hexachlorobenzene	1.0E-01	1.2E+00	---	1.0E-01
Hexachlorocyclohexadiene	5.0E+00	9.8E-01	7.0E-05	7.0E-05
Hexachloroethane	7.3E+00	3.1E+02	9.4E-03	9.4E-03
Indeno(1,2,3-cd)pyrene	2.8E-01	2.0E+03	---	2.8E-01
Isophorone	2.2E+02	1.9E+04	6.5E-01	6.5E-01
Nitrobenzene	1.5E+01	1.6E+02	6.7E-02	6.7E-02
n-Nitrosodimethylamine	4.0E-03	4.4E+00	1.7E+02	4.0E-03
n-Nitrosodi-n-propylamine	2.9E-02	---	1.2E-01	2.9E-02
n-Nitrosodiphenylamine	4.2E+01	---	1.7E+02	4.2E+01
o-Cresol	3.7E+02	1.8E+04	5.1E-01	5.1E-01
Pentachlorophenol	1.0E-01	2.4E+03	9.6E-03	9.6E-03
Phenanthrene	2.2E+02	---	4.6E-03	4.6E-03
Phenol	2.2E+03	5.0E+04	2.8E+00	2.8E+00
Pyrene	2.2E+02	---	2.4E-04	2.4E-04
Pyridine	7.3E+00	4.0E+01	---	7.3E+00
Sulfate	---	---	---	NV
Chloride	---	---	---	NV
Total Dissolved Solids(TDS)	---	---	---	NV
Total Suspended Solids	---	---	---	NV
Total Organic Carbon	---	---	---	NV
Hardness	---	---	---	NV

Notes:

1. All values in mg/L.
2. Values from Table 18 of RI/FS Work Plan (updated to reflect changes from 2005 where applicable).
3. ^{GW}GW_{Class 3}PCL = TCEQ Protective Concentration Level for Class 3 groundwater, commercial/industrial land use. March 2009.
4. ^{Air}GW_{Inh-V}PCL = TCEQ Protective Concentration Level for inhalation of constituents in groundwater, 30 acre source area, commercial/industrial land use. March 2009.
5. From Table 3-2 (Ecological Benchmarks for Water) of TCEQ "Guidance for Conducting Ecological Risk Assessments at Remediation Sites in Texas." Metals benchmarks are for dissolved concentrations, except for barium, mercury, selenium, and thallium.
6. NV = No Preliminary Screening Value.

**TABLE 4 - DETECTED CONCENTRATIONS IN SBMW29-01
AND SBMW30-01 SOIL SAMPLES**

Sample Location	Sample Depth (ft)	Chemical of Interest	Concentration (mg/kg)
SBMW29-01	12.5-13.5	1,1,1-Trichloroethane	3750
		1,1-Dichloroethane	67.3J ⁽¹⁾
		1,1-Dichloroethene	128J
		1,2,3-Trichloropropane	471
		1,2-Dichloroethane	595
		Benzene	84.3J
		Benzo(b)fluoranthene	0.017J
		Fluoranthene	0.03J
		Fluorene	0.013J
		Isopropylbenzene (Cumene)	93.7J
		Methylene chloride	1130
		Naphthalene	102J
		Phenanthrene	0.057J
		Tetrachloroethene	4340
		Toluene	108J
		Trichloroethene	2150
		1,1,1-Trichloroethane	4590
		1,2,3-Trichloropropane	1220
SBMW30-01	33.6-34.1	2-Methylnaphthalene	52.8
		Acenaphthene	18.9J
		Acenaphthylene	11.5
		Aldrin	0.037
		Anthracene	18
		Benzo(a)anthracene	31.9
		Benzo(a)pyrene	18.4
		Benzo(b)fluoranthene	37.7
		Benzo(g,h,i)perylene	20.4
		Biphenyl	12.1J
		Carbazole	15.2
		Chrysene	36.8
		Dibenz(a,h)anthracene	8.93
		Dibenzofuran	29.9
		Endosulfan II	0.025J
		Endrin aldehyde	0.049J
		Fluoranthene	86.1
		Fluorene	44.1
		gamma-BHC (Lindane)	0.00796J
		Heptachlor epoxide	0.167J
		Indeno(1,2,3-cd)pyrene	19.5
		Naphthalene	317J
		Phenanthrene	172
		Pyrene	80
		Tetrachloroethene	8420
		Toluene	170J
		Trichloroethene	6610

Notes:

(1) Data qualifier: J = estimated value.

TABLE 5 - EXTENT EVALUATION COMPARISON VALUES - EASTERN AND VERTICAL EXTENT IN SOIL⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 15 of RI/FS Work Plan ⁽²⁾					PSV	Potential Background Values		Extent Evaluation Comparison Value
	EPA Region 6 Soil Screening Criteria ⁽³⁾	Tot _{Soil} _{Comb} ⁽⁴⁾	GW _{Soil} _{Class 3} ⁽⁵⁾	Air _{Soil} _{Inh-V} ⁽⁶⁾	Air _{GW} _{Soil} _{Inh-V} ⁽⁷⁾		TCEQ ⁽⁹⁾	Site-Specific ⁽¹⁰⁾	
METALS									
Aluminum	1.0E+05	5.7E+05 ⁽¹¹⁾	1.0E+06	---	---	6.7E+04	3.0E+04	---	6.7E+04
Antimony	4.5E+02	3.1E+02	2.7E+02	---	---	2.7E+02	1.0E+00	---	2.7E+02
Arsenic	1.8E+00	2.0E+02	2.5E+02	---	---	1.8E+00	5.9E+00	8.7E+00	8.7E+00
Barium	7.9E+04	8.9E+04 ⁽¹¹⁾	2.2E+04	---	---	2.2E+04	3.0E+02	4.6E+02	2.2E+04
Beryllium	2.2E+03	2.5E+02	9.2E+01	---	---	9.2E+01	1.5E+00	---	9.2E+01
Boron	1.0E+05	1.9E+05	---	---	---	1.0E+05	3.0E+01	---	1.0E+05
Cadmium	5.6E+02	8.5E+02	7.5E+01	---	---	7.5E+01	---	---	7.5E+01
Chromium	5.0E+02	5.7E+04	1.2E+05	---	---	5.0E+02	3.0E+01	2.4E+01	5.0E+02
Chromium (VI)	7.1E+01	1.0E+03	1.4E+03	---	---	7.1E+01	---	---	7.1E+01
Cobalt	2.1E+03	2.7E+02 ⁽¹¹⁾	9.9E+02 ⁽¹¹⁾	---	---	2.7E+02	7.0E+00	---	2.7E+02
Copper	4.2E+04	3.7E+04	5.2E+04	---	---	3.7E+04	1.5E+01	2.4E+01	3.7E+04
Iron	1.0E+05	---	---	---	---	1.0E+05	1.5E+04	---	1.0E+05
Lead	8.0E+02	1.6E+03	1.5E+02	---	---	1.5E+02	1.5E+01	1.8E+01	1.5E+02
Lithium	2.3E+04	1.9E+03 ⁽¹¹⁾	---	---	---	1.9E+03	---	3.6E+01	1.9E+03
Manganese	3.5E+04	2.4E+04	5.1E+05	---	---	2.4E+04	3.0E+02	6.5E+02	2.4E+04
Mercury	3.4E+02	3.3E+00	3.9E-01	3.3E+00	2.6E+00	3.9E-01	4.0E-02	3.5E-02	3.9E-01
Molybdenum	5.7E+03	4.5E+03	7.3E+03	---	---	4.5E+03	---	7.4E-01	4.5E+03
Nickel	2.3E+04	7.9E+03	2.3E+04	---	---	7.9E+03	1.0E+01	---	7.9E+03
Selenium	5.7E+03	4.7E+03	1.1E+02	---	---	1.1E+02	3.0E-01	---	1.1E+02
Silver	5.7E+03	1.7E+03	7.1E+01	---	---	7.1E+01	---	---	7.1E+01
Strontium	1.0E+05	4.9E+05	9.2E+04	---	---	9.2E+04	1.0E+02	---	9.2E+04
Thallium	---	7.8E+01	8.7E+01	---	---	7.8E+01	9.3E+00	---	7.8E+01
Tin	---	4.0E+05	1.0E+06	---	---	4.0E+05	9.0E-01	---	4.0E+05
Titanium	---	1.0E+06	---	---	---	1.0E+06	2.0E+03	---	1.0E+06
Vanadium	1.1E+03	2.3E+03	5.1E+05	---	---	1.1E+03	5.0E+01	---	1.1E+03
Zinc	1.0E+05	2.5E+05	3.5E+05	---	---	1.0E+05	3.0E+01	2.8E+02	1.0E+05
PESTICIDES									
4,4'-DDD	1.1E+01	1.0E+02	1.5E+03	---	---	1.1E+01	---	---	1.1E+01
4,4'-DDE	7.8E+00	7.3E+01	1.3E+03	---	---	7.8E+00	---	---	7.8E+00
4,4'-DDT	7.8E+00	6.8E+01	1.7E+03	1.0E+03	3.7E+05	7.8E+00	---	---	7.8E+00

TABLE 5 - EXTENT EVALUATION COMPARISON VALUES - EASTERN AND VERTICAL EXTENT IN SOIL⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 15 of RI/FS Work Plan ⁽²⁾					PSV	Potential Background Values		Extent Evaluation Comparison Value
	EPA Region 6 Soil Screening Criteria ⁽³⁾	Tot Soil _{Comb} ⁽⁴⁾	GW Soil _{Class 3} ⁽⁵⁾	Air Soil _{Inh-V} ⁽⁶⁾	Air GW Soil _{Inh-V} ⁽⁷⁾		TCEQ ⁽⁹⁾	Site-Specific ⁽¹⁰⁾	
Aldrin	1.1E-01	9.7E-01	1.2E+01	7.2E+00	9.2E+02	1.1E-01	---	---	1.1E-01
alpha-BHC	4.0E-01	2.9E+00	8.9E-01	1.2E+01	9.1E+02	4.0E-01	---	---	4.0E-01
alpha-Chlordane	---	5.4E+01	8.3E+04	3.5E+03	1.0E+06	5.4E+01	---	---	5.4E+01
beta-BHC	1.4E+00	1.1E+01	3.2E+00	6.2E+01	7.1E+03	1.4E+00	---	---	1.4E+00
delta-BHC	---	1.2E+01	1.9E+01	8.8E+01	1.3E+04	1.2E+01	---	---	1.2E+01
Dieldrin	1.2E-01	1.1E+00	5.5E+00	2.7E+01	1.2E+04	1.2E-01	---	---	1.2E-01
Endosulfan I	---	1.2E+02	4.6E+03	1.3E+02	5.2E+04	1.2E+02	---	---	1.2E+02
Endosulfan II	---	4.1E+03	1.4E+04	---	---	4.1E+03	---	---	4.1E+03
Endosulfan sulfate	---	4.1E+03	7.0E+05	---	---	4.1E+03	---	---	4.1E+03
Endrin	2.1E+02	1.3E+02	3.8E+01	3.4E+02	1.1E+05	3.8E+01	---	---	3.8E+01
Endrin aldehyde	---	2.0E+02	9.4E+04	---	---	2.0E+02	---	---	2.0E+02
Endrin ketone	---	1.8E+02	7.6E+03	1.4E+03	1.0E+06	1.8E+02	---	---	1.8E+02
gamma-BHC (Lindane)	1.9E+00	1.8E+01	4.6E-01	4.2E+02	3.5E+04	4.6E-01	---	---	4.6E-01
gamma-Chlordane	---	5.1E+01	4.6E+03	8.4E+02	2.6E+05	5.1E+01	---	---	5.1E+01
Heptachlor	4.3E-01	2.8E+00	9.4E+00	7.9E+00	3.2E+02	4.3E-01	---	---	4.3E-01
Heptachlor epoxide	2.1E-01	1.9E+00	2.9E+00	2.1E+01	3.8E+03	2.1E-01	---	---	2.1E-01
Methoxychlor	3.4E+03	3.0E+03	6.2E+03	2.2E+04	1.0E+06	3.0E+03	---	---	3.0E+03
Toxaphene	1.7E+00	1.7E+01	5.8E+02	8.3E+02	7.5E+05	1.7E+00	---	---	1.7E+00
PCBs	---	7.1E+00	5.3E+02	4.7E+01	6.8E+03	7.1E+00	---	---	7.1E+00
Aroclor-1016	2.4E+01	---	---	---	---	2.4E+01	---	---	2.4E+01
Aroclor-1221	8.3E-01	---	---	---	---	8.3E-01	---	---	8.3E-01
Aroclor-1232	8.3E-01	---	---	---	---	8.3E-01	---	---	8.3E-01
Aroclor-1242	8.3E-01	---	---	---	---	8.3E-01	---	---	8.3E-01
Aroclor-1248	8.3E-01	---	---	---	---	8.3E-01	---	---	8.3E-01
Aroclor-1254	8.3E-01	---	---	---	---	8.3E-01	---	---	8.3E-01
Aroclor-1260	8.3E-01	---	---	---	---	8.3E-01	---	---	8.3E-01
VOCs									
1,1,1,2-Tetrachloroethane	7.6E+00	7.3E+01 ⁽¹¹⁾	1.6E+02 ⁽¹¹⁾	7.8E+01 ⁽¹¹⁾	4.9E+02 ⁽¹¹⁾	7.6E+00	---	---	7.6E+00
1,1,1-Trichloroethane	1.4E+03	5.4E+04 ⁽¹¹⁾	8.1E+01	5.5E+04 ⁽¹¹⁾	2.9E+04 ⁽¹¹⁾	8.1E+01	---	---	8.1E+01
1,1,2,2-Tetrachloroethane	9.7E-01	7.3E+00	2.6E+00	7.7E+00	2.4E+01	9.7E-01	---	---	9.7E-01
1,1,2-Trichloroethane	2.1E+00	1.9E+01	1.0E+00	1.9E+01	3.5E+01	1.0E+00	---	---	1.0E+00
1,1-Dichloroethane	2.3E+03	4.3E+03 ⁽¹¹⁾	2.8E+03 ⁽¹¹⁾	4.4E+03	2.5E+03	2.3E+03	---	---	2.3E+03

TABLE 5 - EXTENT EVALUATION COMPARISON VALUES - EASTERN AND VERTICAL EXTENT IN SOIL⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 15 of RI/FS Work Plan ⁽²⁾					PSV	Potential Background Values		Extent Evaluation Comparison Value
	EPA Region 6 Soil Screening Criteria ⁽³⁾	Tot Soil _{Comb} ⁽⁴⁾	GW Soil _{Class 3} ⁽⁵⁾	Air Soil _{Inh-V} ⁽⁶⁾	Air GW Soil _{Inh-V} ⁽⁷⁾		TCEQ ⁽⁹⁾	Site-Specific ⁽¹⁰⁾	
1,1-Dichloroethene	4.7E+02	3.5E+03 ⁽¹¹⁾	2.5E+00	3.8E+03 ⁽¹¹⁾	1.1E+03 ⁽¹¹⁾	2.5E+00	---	---	2.5E+00
1,1-Dichloropropene	---	6.1E+01	1.5E+01	7.7E+01	3.1E+01	1.5E+01	---	---	1.5E+01
1,2,3-Trichloropropane	3.4E-03	4.1E+00	2.6E-01	2.0E+03	1.0E+04	3.4E-03	---	---	3.4E-03
1,2,4-Trichlorobenzene	2.6E+02	4.2E+03 ⁽¹¹⁾	2.4E+02	1.1E+04 ⁽¹¹⁾	9.7E+04 ⁽¹¹⁾	2.4E+02	---	---	2.4E+02
1,2,4-Trimethylbenzene	1.9E+02	1.1E+02 ⁽¹¹⁾	7.2E+03	1.1E+02 ⁽¹¹⁾	6.8E+02 ⁽¹¹⁾	1.1E+02	---	---	1.1E+02
1,2-Dibromo-3-chloropropane	2.2E+00	1.4E-01 ⁽¹¹⁾	8.7E-02	1.4E-01 ⁽¹¹⁾	5.9E-01 ⁽¹¹⁾	8.7E-02	---	---	8.7E-02
1,2-Dibromoethane	7.0E-02	7.9E-01 ⁽¹¹⁾	1.0E-02	8.4E-01 ⁽¹¹⁾	2.5E+00 ⁽¹¹⁾	1.0E-02	---	---	1.0E-02
1,2-Dichlorobenzene	3.7E+02	5.7E+02	8.9E+02	1.8E+03 ⁽¹¹⁾	9.1E+03 ⁽¹¹⁾	3.7E+02	---	---	3.7E+02
1,2-Dichloroethane	8.4E-01	1.1E+01	6.9E-01	1.2E+01	9.8E+00	6.9E-01	---	---	6.9E-01
1,2-Dichloropropane	8.5E-01	4.4E+01	1.1E+00	4.4E+01	4.8E+01	8.5E-01	---	---	8.5E-01
1,3,5-Trimethylbenzene	7.8E+01	8.3E+01	7.9E+03	8.3E+01	5.0E+02	7.8E+01	---	---	7.8E+01
1,3-Dichlorobenzene	1.5E+02	8.8E+01	1.0E+03	8.8E+01	1.6E+02	8.8E+01	---	---	8.8E+01
1,3-Dichloropropane	---	6.1E+01	7.2E+00	7.7E+01	2.0E+02	7.2E+00	---	---	7.2E+00
1,4-Dichlorobenzene	8.1E+00	1.2E+03	1.1E+02	1.3E+04	6.6E+04	8.1E+00	---	---	8.1E+00
2,2-Dichloropropane	---	4.4E+01	1.4E+01	4.4E+01	4.6E+01	1.4E+01	---	---	1.4E+01
2-Butanone	3.4E+04	7.3E+04	4.4E+03	8.2E+04	4.9E+05	4.4E+03	---	---	4.4E+03
2-Chloroethylvinyl ether	---	3.3E+00	3.2E-01	3.3E+00	6.2E+00	3.2E-01	---	---	3.2E-01
2-Chlorotoluene	5.1E+02	2.5E+03	1.4E+03	3.1E+03	1.3E+04	5.1E+02	---	---	5.1E+02
2-Hexanone	---	7.9E+01	5.8E+02	7.9E+01	3.7E+02	7.9E+01	---	---	7.9E+01
4-Chlorotoluene	---	3.5E+00	5.7E+03 ⁽¹¹⁾	3.5E+00	1.6E+01	3.5E+00	---	---	3.5E+00
4-Isopropyltoluene	---	4.7E+03	3.5E+04	4.9E+03	3.9E+04	4.7E+03	---	---	4.7E+03
4-Methyl-2-pentanone	1.7E+04	2.8E+04	7.4E+02	4.2E+04	1.5E+05	7.4E+02	---	---	7.4E+02
Acetone	1.0E+05	8.1E+03	6.4E+03	8.2E+03	4.5E+04	6.4E+03	---	---	6.4E+03
Acrolein	3.8E-01	8.1E-01	3.5E+00	8.1E-01	1.2E+01	3.8E-01	---	---	3.8E-01
Acrylonitrile	5.5E-01	4.2E+00	3.7E-01	4.6E+00	1.2E+01	3.7E-01	---	---	3.7E-01
Benzene	1.6E+00	1.11E+02 ⁽¹¹⁾	1.3E+00	1.41E+02 ⁽¹¹⁾	1.00E+02 ⁽¹¹⁾	1.3E+00	---	---	1.3E+00
Bromobenzene	1.2E+02	1.2E+02 ⁽¹¹⁾	8.6E+02	1.2E+02 ⁽¹¹⁾	4.0E+02 ⁽¹¹⁾	1.2E+02	---	---	1.2E+02
Bromodichloromethane	2.6E+00	4.6E+02	7.3E+00	---	---	2.6E+00	---	---	2.6E+00
Bromoform	2.4E+02	6.0E+02	7.1E+01	7.2E+02	3.1E+03	7.1E+01	---	---	7.1E+01
Bromomethane	1.5E+01	5.3E+01	2.0E+01	5.5E+01	1.6E+01	1.5E+01	---	---	1.5E+01

TABLE 5 - EXTENT EVALUATION COMPARISON VALUES - EASTERN AND VERTICAL EXTENT IN SOIL⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 15 of RI/FS Work Plan ⁽²⁾					PSV	Potential Background Values		Extent Evaluation Comparison Value
	EPA Region 6 Soil Screening Criteria ⁽³⁾	Tot Soil _{Comb} ⁽⁴⁾	GW Soil _{Class 3} ⁽⁵⁾	Air Soil _{Inh-V} ⁽⁶⁾	Air GW Soil _{Inh-V} ⁽⁷⁾		TCEQ ⁽⁹⁾	Site-Specific ⁽¹⁰⁾	
Butanol	6.8E+04	3.1E+03	7.9E+02	3.2E+03	3.8E+04	7.9E+02	---	---	7.9E+02
Carbon disulfide	7.2E+02	7.2E+03	2.0E+03	7.7E+03	2.4E+03	7.2E+02	---	---	7.2E+02
Carbon tetrachloride	5.8E-01	1.9E+01	3.1E+00	2.1E+01	1.1E+01	5.8E-01	---	---	5.8E-01
Chlorobenzene	6.0E+02	5.4E+02 ⁽¹¹⁾	5.5E+01	5.5E+02 ⁽¹¹⁾	1.1E+03 ⁽¹¹⁾	5.5E+01	---	---	5.5E+01
Chloroethane	7.2E+00	8.7E+04	4.6E+03	1.1E+05	3.3E+04	7.2E+00	---	---	7.2E+00
Chloroform	5.8E-01	1.3E+01	1.5E+02	1.3E+01	9.0E+00	5.8E-01	---	---	5.8E-01
Chloromethane	3.0E+00	1.6E+02	4.5E+01	1.7E+02	2.3E+01	3.0E+00	---	---	3.0E+00
cis-1,2-Dichloroethene	1.6E+02	4.7E+03	1.2E+01	8.8E+03	5.2E+03	1.2E+01	---	---	1.2E+01
cis-1,3-Dichloropropene	---	4.3E+01	7.4E-01	7.4E+01	8.2E+01	7.4E-01	---	---	7.4E-01
Cyclohexane	6.8E+03	4.2E+04	2.9E+05	4.7E+04	1.8E+04	6.8E+03	---	---	6.8E+03
Dibromochloromethane	2.6E+00	3.4E+02	5.5E+00	---	---	2.6E+00	---	---	2.6E+00
Dibromomethane	5.9E+02	1.9E+02	1.3E+02	1.9E+02	6.6E+02	1.3E+02	---	---	1.3E+02
Dichlorodifluoromethane	3.4E+02	4.3E+04	3.6E+04	5.5E+04	1.3E+04	3.4E+02	---	---	3.4E+02
Ethylbenzene	2.3E+02	1.0E+04	3.8E+02	1.1E+04	1.5E+04	2.3E+02	---	---	2.3E+02
Hexachlorobutadiene	2.5E+01	2.3E+01	3.7E+02 ⁽¹¹⁾	2.5E+01	2.7E+02	2.3E+01	---	---	2.3E+01
Isopropylbenzene (Cumene)	5.8E+02	6.3E+03	5.2E+04	6.7E+03	5.7E+04	5.8E+02	---	---	5.8E+02
Methyl acetate	1.0E+05	6.6E+03	7.3E+03	6.6E+03	2.4E+04	6.6E+03	---	---	6.6E+03
Methyl iodide	---	1.2E+02	1.7E+01	1.3E+02	5.1E+01	1.7E+01	---	---	1.7E+01
Methylcyclohexane	1.4E+02	3.3E+04	1.0E+06	3.3E+04	1.6E+04	1.4E+02	---	---	1.4E+02
Methylene chloride	2.2E+01	5.6E+02	6.5E-01	6.6E+02	3.6E+02	6.5E-01	---	---	6.5E-01
Naphthalene	2.1E+02	1.9E+02	4.7E+03	1.9E+02	1.8E+03	1.9E+02	---	---	1.9E+02
n-Butylbenzene	2.4E+02	4.0E+03	1.8E+04	4.7E+03	4.1E+04	2.4E+02	---	---	2.4E+02
n-Propylbenzene	2.4E+02	4.1E+03	6.7E+03	4.6E+03	2.5E+04	2.4E+02	---	---	2.4E+02
o-Xylene	2.8E+02	8.0E+03 ⁽¹¹⁾	3.5E+03	8.1E+03 ⁽¹¹⁾	8.0E+04 ⁽¹¹⁾	2.8E+02	---	---	2.8E+02
sec-Butylbenzene	2.2E+02	3.7E+03	1.3E+04	4.1E+03	3.0E+04	2.2E+02	---	---	2.2E+02
Styrene	1.7E+03	7.8E+03 ⁽¹¹⁾	1.6E+02	8.1E+03 ⁽¹¹⁾	4.5E+04 ⁽¹¹⁾	1.6E+02	---	---	1.6E+02
tert-Butyl methyl ether (MTBE)	4.1E+01	1.1E+03	9.3E+01	1.2E+03	1.1E+03	4.1E+01	---	---	4.1E+01
tert-Butylbenzene	3.9E+02	3.2E+03	1.5E+04	3.4E+03	2.3E+04	3.9E+02	---	---	3.9E+02
Tetrachloroethene	1.7E+00	3.3E+02 ⁽¹¹⁾	2.5E+00	8.1E+02 ⁽¹¹⁾	5.4E+02 ⁽¹¹⁾	1.7E+00	---	---	1.7E+00
Toluene	5.2E+02	2.9E+04 ⁽¹¹⁾	4.1E+02	4.5E+04 ⁽¹¹⁾	4.7E+04 ⁽¹¹⁾	4.1E+02	---	---	4.1E+02
trans-1,2-Dichloroethene	2.4E+02	6.42E+02 ⁽¹¹⁾	2.5E+01	6.63E+02 ⁽¹¹⁾	3.41E+02 ⁽¹¹⁾	2.5E+01	---	---	2.5E+01

TABLE 5 - EXTENT EVALUATION COMPARISON VALUES - EASTERN AND VERTICAL EXTENT IN SOIL⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 15 of RI/FS Work Plan ⁽²⁾					PSV	Potential Background Values		Extent Evaluation Comparison Value
	EPA Region 6 Soil Screening Criteria ⁽³⁾	Tot Soil _{Comb} ⁽⁴⁾	GW Soil _{Class 3} ⁽⁵⁾	Air Soil _{Inh-V} ⁽⁶⁾	Air GW Soil _{Inh-V} ⁽⁷⁾		TCEQ ⁽⁹⁾	Site-Specific ⁽¹⁰⁾	
trans-1,3-Dichloropropene	---	6.1E+01	4.0E+00	7.7E+01	8.1E+01	4.0E+00	---	---	4.0E+00
trans-1,4-Dichloro-2-butene	---	2.9E-01	---	2.9E-01	1.2E+00	2.9E-01	---	---	2.9E-01
Trichloroethene	1.0E-01	1.1E+02 ⁽¹¹⁾	1.7E+00	1.1E+02 ⁽¹¹⁾	7.2E+02 ⁽¹¹⁾	1.0E-01	---	---	1.0E-01
Trichlorofluoromethane	1.4E+03	2.8E+04	1.9E+04	3.1E+04	6.4E+03	1.4E+03	---	---	1.4E+03
Trichlorotrifluoroethane	5.6E+03	3.3E+05	1.0E+06	3.3E+05	9.0E+04	5.6E+03	---	---	5.6E+03
Vinyl acetate	1.6E+03	2.2E+03	8.0E+03	2.2E+03	2.8E+03	1.6E+03	---	---	1.6E+03
Vinyl chloride	4.3E-01	1.3E+01 ⁽¹¹⁾	1.1E+00	3.7E+01 ⁽¹¹⁾	4.6E+00 ⁽¹¹⁾	4.3E-01	---	---	4.3E-01
Xylene (total)	2.1E+02	6.5E+03 ⁽¹¹⁾	6.1E+03	6.7E+03 ⁽¹¹⁾	1.1E+04 ⁽¹¹⁾	2.1E+02	---	---	2.1E+02
SVOCs									
1,2Diphenylhydrazine/Azobenzen	2.4E+00	1.5E+02 ⁽¹¹⁾	2.0E+03 ⁽¹¹⁾	1.2E+03 ⁽¹¹⁾	1.6E+05 ⁽¹¹⁾	2.4E+00	---	---	2.4E+00
2,4,5-Trichlorophenol	6.8E+04	1.2E+04	5.1E+03	1.5E+04	5.7E+05	5.1E+03	---	---	5.1E+03
2,4,6-Trichlorophenol	1.7E+02	6.81E+02 ⁽¹¹⁾	2.61E+01 ⁽¹¹⁾	1.7E+03	3.8E+04	2.6E+01	---	---	2.6E+01
2,4-Dichlorophenol	2.1E+03	1.7E+03	5.3E+01	9.6E+03	2.4E+05	5.3E+01	---	---	5.3E+01
2,4-Dimethylphenol	1.4E+04	2.9E+03	4.8E+02	3.6E+03	9.8E+04	4.8E+02	---	---	4.8E+02
2,4-Dinitrophenol	1.4E+03	1.4E+03	1.4E+01	---	---	1.4E+01	---	---	1.4E+01
2,4-Dinitrotoluene	1.4E+03	2.1E+01	6.0E-01	2.1E+01	4.4E+02	6.0E-01	---	---	6.0E-01
2,6-Dinitrotoluene	6.8E+02	2.8E+01	5.4E-01	3.1E+01	1.0E+03	5.4E-01	---	---	5.4E-01
2-Chloronaphthalene	2.6E+04	5.0E+04	1.0E+05	---	---	2.6E+04	---	---	2.6E+04
2-Chlorophenol	2.6E+02	2.4E+03	2.4E+02	4.5E+03	7.4E+04	2.4E+02	---	---	2.4E+02
2-Methylnaphthalene	---	2.5E+03	2.5E+03	---	---	2.5E+03	---	---	2.5E+03
2-Nitroaniline	2.0E+03	2.9E+01 ⁽¹¹⁾	3.3E+00 ⁽¹¹⁾	3.4E+01 ⁽¹¹⁾	1.1E+03 ⁽¹¹⁾	3.3E+00	---	---	3.3E+00
2-Nitrophenol	---	4.1E+02	2.0E+01	5.8E+02	1.7E+04	2.0E+01	---	---	2.0E+01
3,3'-Dichlorobenzidine	4.3E+00	4.2E+01	7.0E+00	---	---	4.3E+00	---	---	4.3E+00
3-Nitroaniline	---	1.6E+02	3.8E+00	6.4E+02	2.3E+04	3.8E+00	---	---	3.8E+00
4,6-Dinitro-2-methylphenol	---	2.26E+01 ⁽¹¹⁾	7.0E-01 ⁽¹¹⁾	3.4E+01	1.5E+03	7.0E-01	---	---	7.0E-01
4-Bromophenyl phenyl ether	---	1.1E+00	4.0E+01	8.4E+00	1.0E+03	1.1E+00	---	---	1.1E+00
4-Chloro-3-methylphenol	---	3.0E+03	6.8E+02	2.5E+04	1.0E+06	6.8E+02	---	---	6.8E+02
4-Chloroaniline	2.7E+03	9.5E+01 ⁽¹¹⁾	2.3E+00 ⁽¹¹⁾	1.0E+03	2.8E+04	2.3E+00	---	---	2.3E+00
4-Chlorophenyl phenyl ether	---	8.0E-01	3.6E+00	2.2E+00	7.0E+01	8.0E-01	---	---	8.0E-01
4-Nitroaniline	---	6.6E+02 ⁽¹¹⁾	1.2E+01 ⁽¹¹⁾	8.7E+02 ⁽¹¹⁾	3.1E+04 ⁽¹¹⁾	1.2E+01	---	---	1.2E+01

TABLE 5 - EXTENT EVALUATION COMPARISON VALUES - EASTERN AND VERTICAL EXTENT IN SOIL⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 15 of RI/FS Work Plan ⁽²⁾					PSV	Potential Background Values		Extent Evaluation Comparison Value
	EPA Region 6 Soil Screening Criteria ⁽³⁾	Tot Soil _{Comb} ⁽⁴⁾	GW Soil _{Class 3} ⁽⁵⁾	Air Soil _{Inh-V} ⁽⁶⁾	Air GW Soil _{Inh-V} ⁽⁷⁾		TCEQ ⁽⁹⁾	Site-Specific ⁽¹⁰⁾	
4-Nitrophenol	5.5E+03	1.1E+02	1.5E+01	1.2E+02	4.4E+03	1.5E+01	---	---	1.5E+01
Acenaphthene	3.3E+04	3.7E+04	3.5E+04	---	---	3.3E+04	---	---	3.3E+04
Acenaphthylene	---	3.7E+04	6.1E+04	---	---	3.7E+04	---	---	3.7E+04
Acetophenone	1.7E+03	3.3E+03	1.2E+03	3.5E+03	4.1E+04	1.2E+03	---	---	1.2E+03
Aniline	3.4E+02	9.3E+01	4.1E+01	9.4E+01	2.3E+03	4.1E+01	---	---	4.1E+01
Anthracene	1.0E+05	1.9E+05	1.0E+06	---	---	1.0E+05	---	---	1.0E+05
Atrazine (Aatrex)	8.6E+00	8.6E+01	1.2E+00	2.4E+03	1.4E+05	1.2E+00	---	---	1.2E+00
Benzaldehyde	6.8E+04	3.4E+02	1.6E+03	3.5E+02	2.0E+03	3.4E+02	---	---	3.4E+02
Benzidine	8.3E-03	3.3E-02	1.2E-03	5.4E-02	1.9E+00	1.2E-03	---	---	1.2E-03
Benzo(a)anthracene	2.3E+00	2.4E+01	2.0E+03	3.2E+03	1.0E+06	2.3E+00	---	---	2.3E+00
Benzo(a)pyrene	2.3E-01	2.4E+00	3.8E+02	7.3E+02	1.0E+06	2.3E-01	---	---	2.3E-01
Benzo(b)fluoranthene	2.3E+00	2.4E+01	6.7E+03	5.3E+03	1.0E+06	2.3E+00	---	---	2.3E+00
Benzo(g,h,i)perylene	---	1.9E+04	1.0E+06	---	---	1.9E+04	---	---	1.9E+04
Benzo(k)fluoranthene	2.3E+01	2.4E+02	6.9E+04	1.3E+05	1.0E+06	2.3E+01	---	---	2.3E+01
Benzoic acid	1.0E+05	5.0E+02	2.8E+04	5.0E+02	1.8E+04	5.0E+02	---	---	5.0E+02
Benzyl alcohol	1.0E+05	6.2E+03	4.4E+03 ⁽¹¹⁾	6.4E+03	2.0E+05	4.4E+03	---	---	4.4E+03
Biphenyl	2.6E+04	1.9E+02	3.8E+04	1.9E+02	3.8E+03	1.9E+02	---	---	1.9E+02
Bis(2-Chloroethoxy)methane	---	6.2E+00	1.3E+00	9.8E+00	1.2E+02	1.3E+00	---	---	1.3E+00
Bis(2-Chloroethyl)ether	6.2E-01	2.8E+00	2.4E-01	3.1E+00	2.6E+01	2.4E-01	---	---	2.4E-01
Bis(2-Chloroisopropyl)ether	---	1.1E+02	2.1E+01	1.8E+02	1.4E+03	2.1E+01	---	---	2.1E+01
Bis(2-Ethylhexyl)phthalate	1.4E+02	5.6E+02	8.2E+03	---	---	1.4E+02	---	---	1.4E+02
Butyl benzyl phthalate	2.4E+02	1.0E+04 ⁽¹¹⁾	3.0E+04 ⁽¹¹⁾	1.8E+04	1.0E+06	2.4E+02	---	---	2.4E+02
Caprolactam	1.0E+05	2.3E+02	7.0E+03	2.3E+02	8.5E+03	2.3E+02	---	---	2.3E+02
Carbazole	9.6E+01	9.5E+02	5.1E+02	---	---	9.6E+01	---	---	9.6E+01
Chrysene	2.3E+02	2.4E+03	1.7E+05	5.1E+05	1.0E+06	2.3E+02	---	---	2.3E+02
Dibenz(a,h)anthracene	2.3E-01	2.4E+00	1.1E+03	1.7E+03	1.0E+06	2.3E-01	---	---	2.3E-01
Dibenzofuran	1.7E+03	2.7E+03	5.0E+03	---	---	1.7E+03	---	---	1.7E+03
Diethyl phthalate	1.0E+05	2.0E+03	2.3E+04	2.1E+03	9.8E+04	2.0E+03	---	---	2.0E+03
Dimethyl phthalate	1.0E+05	9.3E+02	9.3E+03	9.3E+02	3.0E+04	9.3E+02	---	---	9.3E+02
Di-n-butyl phthalate	6.8E+04	1.6E+04	5.0E+05	2.1E+04	1.0E+06	1.6E+04	---	---	1.6E+04
Di-n-octyl phthalate	2.7E+04	1.3E+04 ⁽¹¹⁾	1.0E+06	3.9E+05 ⁽¹¹⁾	1.0E+06 ⁽¹¹⁾	1.3E+04	---	---	1.3E+04
Fluoranthene	2.4E+04	2.5E+04	2.9E+05	---	---	2.4E+04	---	---	2.4E+04

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Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 15 of RI/FS Work Plan ⁽²⁾					PSV	Potential Background Values		Extent Evaluation Comparison Value
	EPA Region 6 Soil Screening Criteria ⁽³⁾	TotSoil _{Comb} ⁽⁴⁾	GWSoil _{Class 3} ⁽⁵⁾	AirSoil _{Inh-V} ⁽⁶⁾	AirGWSoil _{Inh-V} ⁽⁷⁾		TCEQ ⁽⁹⁾	Site-Specific ⁽¹⁰⁾	
Fluorene	2.6E+04	2.5E+04	4.5E+04	---	---	2.5E+04	---	---	2.5E+04
Hexachlorobenzene	1.2E+00	6.9E+00	5.6E+01	1.6E+01	7.0E+02	1.2E+00	---	---	1.2E+00
Hexachlorocyclopentadiene	4.1E+03	1.0E+01	9.6E+02	1.0E+01	1.9E+02	1.0E+01	---	---	1.0E+01
Hexachloroethane	1.4E+02	5.2E+02	2.7E+02	8.3E+02	1.2E+04	1.4E+02	---	---	1.4E+02
Indeno(1,2,3-cd)pyrene	2.3E+00	2.4E+01	1.9E+04	2.2E+04	1.0E+06	2.3E+00	---	---	2.3E+00
Isophorone	2.0E+03	1.9E+03	3.4E+02	1.9E+03	2.9E+04	3.4E+02	---	---	3.4E+02
Nitrobenzene	1.1E+02	5.7E+01 ⁽¹¹⁾	5.2E+01 ⁽¹¹⁾	5.7E+01 ⁽¹¹⁾	5.6E+02 ⁽¹¹⁾	5.2E+01	---	---	5.2E+01
n-Nitrosodimethylamine	3.8E-02	1.3E-01	4.1E-03	1.7E-01	4.5E+00	4.1E-03	---	---	4.1E-03
n-Nitrosodi-n-propylamine	2.7E-01	1.4E+00	3.9E-02	---	---	3.9E-02	---	---	3.9E-02
n-Nitrosodiphenylamine	3.9E+02	1.9E+03	3.2E+02	---	---	3.2E+02	---	---	3.2E+02
o-Cresol	3.4E+04	1.9E+03	1.1E+03	2.0E+03	5.3E+04	1.1E+03	---	---	1.1E+03
Pentachlorophenol	1.0E+01	1.1E+02	9.2E-01	3.3E+02	2.2E+04	9.2E-01	---	---	9.2E-01
Phenanthrene	---	1.9E+04	6.2E+04	---	---	1.9E+04	---	---	1.9E+04
Phenol	1.0E+05	2.4E+03	2.9E+03	2.4E+03	6.5E+04	2.4E+03	---	---	2.4E+03
Pyrene	3.2E+04	1.9E+04	1.7E+05	---	---	1.9E+04	---	---	1.9E+04
Pyridine	6.8E+02	1.4E+02	1.0E+01	1.7E+02	5.7E+01	1.0E+01	---	---	1.0E+01
Sulfate	---	---	---	---	---	NV	---	---	NV
Chloride	---	---	---	---	---	NV	---	---	NV

Notes:

1. All values in mg/kg.

2. Values from Table 15 of RI/FS Work Plan (updated to reflect changes in toxicity data since 2005 where applicable).

3. From EPA's "Region 6 Human Health Medium-Specific Screening Levels 2004-2005". Industrial Outdoor Worker.

4. TotSoil_{Comb} PCL = TCEQ Protective Concentration Level for 30 acre source area, Commercial/Industrial total soil combined pathway (includes inhalation; ingestion; dermal pathways).

5. GWSoil_{Class 3} PCL = TCEQ Protective Concentration Level for 30 acre source area, Commercial/Industrial soil-to-groundwater leaching for Class 3 groundwater pathway.

6. AirSoil_{Inh-V} PCL = TCEQ Protective Concentration Level for 30 acre source area, Commercial/Industrial soil-to-air pathway (inhalation of volatiles and particulates).

7. AirGW-Soil_{Inh-V} PCL = TCEQ Protective Concentration Level for 30 acre source area, Commercial/Industrial soil and groundwater-to-air pathway (inhalation of volatiles and particulates).

8. NV = No Preliminary Screening Value.

9. From 30 TAC 350.51(m)

10. 95% UTL calculated from site-specific background samples.

11. Updated from Table 15 of RI/FS Workplan to reflect changes in toxicity data from 2005 to 2009 indicated in TCEQ PCL tables.

**TABLE 6 - DETECTED RI SOIL SAMPLE CONCENTRATIONS EXCEEDING EXTENT
EVALUATION COMPARISON VALUES - VERTICAL EXTENT OF NORTH AREA**

Sample Location	Sample Depth (ft below ground surface)	Chemical of Interest	Concentration (mg/kg)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/kg)
ND3SB04	1-2	1,2,3-Trichloropropane	0.168	0.0014
		Trichloroethene	0.537	0.043
	4-5	1,2,3-Trichloropropane	0.0472	0.0014
		Trichloroethene	0.29J ⁽²⁾	0.043
NE3SB09	0-0.5	Benzo(a)pyrene	1.42J	0.062
		Dibenz(a,h)anthracene	0.404J-	0.062
SB-202	0-0.5	Iron	102,000	53,000
		Lead	471	18
SB-203	1.5-2	Benzo(a)pyrene	0.939	0.062
SB-204	1.5-2	Aroclor-1254	6.35J	0.22
SB-205	3-4	Iron	128,000	53,000
		Lead	630	18
SB-206	5-6	Arsenic	8.95	8.7

Notes:

(1) Extent Evaluation Comparison Values from Table 17 of RI Report.

(2) Data qualifiers: J = estimated value. J- = estimated value, biased low.

TABLE 7 - EXTENT EVALUATION COMPARISON VALUES - WESTERN EXTENT OF SOUTH AREA SOILS⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 16 of RI/FS Work Plan ⁽²⁾							PSV	Potential Background Values		Extent Evaluation Comparison Value
	EPA Region 6 Soil Screening Criteria ⁽³⁾	TotSoil _{Comb} ⁽⁴⁾	GWSoil _{Class 3} ⁽⁵⁾	AirSoil _{Inh-V} ⁽⁶⁾	AirGWSoil _{Inh-V} ⁽⁷⁾	EPA Ecological Soil Screening Level ⁽⁸⁾	TCEQ Ecological Benchmark ⁽⁹⁾		TCEQ ⁽¹¹⁾	Site-Specific ⁽¹²⁾	
METALS											
Aluminum	7.6E+04	6.4E+04 ⁽¹³⁾	1E+06 ⁽¹³⁾	---	---	---	---	6.4E+04	3.0E+04	---	6.4E+04
Antimony	3.1E+01	1.5E+01	2.7E+02	---	---	2.7E-01 ***	5.0E+00 +	2.7E-01	1.0E+00	---	1.0E+00
Arsenic	3.9E-01	2.4E+01	2.5E+02	---	---	1.8E+01	1.8E+01 +	3.9E-01	5.9E+00	8.7E+00	8.7E+00
Barium	5.5E+03	7.8E+03 ⁽¹³⁾	2.2E+04	---	---	3.3E+02 *	3.3E+02	3.3E+02	3.0E+02	4.6E+02	4.6E+02
Beryllium	1.5E+02	3.8E+01	9.2E+01	---	---	2.1E+01 ***	1.0E+01 +	1.0E+01	1.5E+00	---	1.0E+01
Boron	1.6E+04	1.6E+04	---	---	---	5.0E-01	5.0E-01	5.0E-01	3.0E+01	---	3.0E+01
Cadmium	3.9E+01	5.2E+01	7.5E+01	---	---	3.6E-01 ***	3.2E+01 +	3.6E-01	---	---	3.6E-01
Chromium	---	2.3E+04	1.2E+05	---	---	---	4.0E-01	4.0E-01	3.0E+01	2.4E+01	3.0E+01
Chromium (VI)	3.0E+01	1.2E+02	1.4E+03	---	---	8.1E+01 ***	---	3.0E+01	---	---	3.0E+01
Cobalt	9.0E+02	2.1E+01 ⁽¹³⁾	3.3E+02 ⁽¹³⁾	---	---	1.3E+01	1.3E+01 +	1.3E+01	7.0E+00	---	1.3E+01
Copper	2.9E+03	5.5E+02	5.2E+04	---	---	---	6.1E+01	6.1E+01	1.5E+01	2.4E+01	6.1E+01
Iron	5.3E+04 ⁽¹⁴⁾	---	---	---	---	---	---	5.3E+04 ⁽¹⁴⁾	1.5E+04	---	5.3E+04
Lead	4.0E+02	5.0E+02	1.5E+02	---	---	1.1E+01 **	1.2E+02 +	1.1E+01	1.5E+01	1.8E+01	1.8E+01
Lithium	1.6E+03	1.3E+02 ⁽¹³⁾	---	---	---	---	2.0E+00	2.0E+00	---	3.6E+01	3.6E+01
Manganese	3.2E+03	3.4E+03	5.8E+04	---	---	---	5.0E+02	5.0E+02	3.0E+02	6.5E+02	6.5E+02
Mercury	2.3E+01	2.1E+00	3.9E-01	2.4E+00	1.8E+00	---	1.0E-01	1.0E-01	4.0E-02	3.5E-02	1.0E-01
Molybdenum	3.9E+02	1.6E+02	2.5E+03	---	---	---	2.0E+00	2.0E+00	---	7.4E-01	2.0E+00
Nickel	1.6E+03	8.3E+02	7.9E+03	---	---	---	3.0E+01	3.0E+01	1.0E+01	---	3.0E+01
Selenium	3.9E+02	3.1E+02	1.1E+02	---	---	---	1.0E+00	1.0E+00	3.0E-01	---	1.0E+00
Silver	3.9E+02	9.5E+01	2.4E+01	---	---	---	2.0E+00	2.0E+00	---	---	2.0E+00
Strontium	4.7E+04	4.4E+04	3.1E+04	---	---	---	---	3.1E+04	1.0E+02	---	3.1E+04
Thallium	---	6.3E+00	8.7E+01	---	---	---	1.0E+00	1.0E+00	9.3E+00	---	9.3E+00
Tin	---	3.5E+04	1.0E+06	---	---	---	5.0E+01	5.0E+01	9.0E-01	---	5.0E+01
Titanium	---	1.0E+06	---	---	---	---	1.0E+06	1.0E+06	2.0E+03	---	1.0E+06
Vanadium	7.8E+01	2.9E+02	1.7E+05	---	---	7.8E+00 **	2.0E+00	2.0E+00	5.0E+01	---	5.0E+01
Zinc	2.3E+04	9.9E+03	1.2E+05	---	---	---	1.2E+02	1.2E+02	3.0E+01	2.8E+02	2.8E+02
PESTICIDES											
4,4'-DDD	2.4E+00	1.4E+01	6.5E+02	---	---	---	---	2.4E+00	---	---	2.4E+00
4,4'-DDE	1.7E+00	1.0E+01	5.9E+02	---	---	---	---	1.7E+00	---	---	1.7E+00
4,4'-DDT	1.7E+00	5.4E+00	7.4E+02	6.2E+02	2.2E+05	---	---	1.7E+00	---	---	1.7E+00
Aldrin	2.9E-02	5.0E-02	5.1E+00	4.3E+00	5.5E+02	---	---	2.9E-02	---	---	2.9E-02
alpha-BHC	9.0E-02	2.5E-01	4.0E-01	7.2E+00	5.4E+02	---	---	9.0E-02	---	---	9.0E-02
beta-BHC	3.2E-01	9.2E-01 ⁽¹³⁾	1.4E+00 ⁽¹³⁾	3.7E+01 ⁽¹³⁾	4.2E+03 ⁽¹³⁾	---	---	3.2E-01	---	---	3.2E-01
alpha-Chlordane	---	1.3E+01 ⁽¹³⁾	3.7E+04 ⁽¹³⁾	2.1E+03 ⁽¹³⁾	1.0E+06 ⁽¹³⁾	---	---	1.3E+01 ⁽¹³⁾	---	---	1.3E+01 ⁽¹³⁾
delta-BHC	---	2.9E+00	8.7E+00	5.2E+01	8.0E+03	---	---	2.9E+00	---	---	2.9E+00
Dieldrin	3.0E-02	1.5E-01	2.4E+00	1.6E+01	7.0E+03	3.2E-05 ***	---	3.2E-05	---	---	3.2E-05
Endosulfan I	---	4.7E+01	1.5E+03	9.6E+01	3.7E+04	---	---	4.7E+01	---	---	4.7E+01
Endosulfan II	---	2.7E+02	4.6E+03	---	---	---	---	2.7E+02	---	---	2.7E+02
Endosulfan sulfate	---	3.8E+02	2.3E+05	---	---	---	---	3.8E+02	---	---	3.8E+02

TABLE 7 - EXTENT EVALUATION COMPARISON VALUES - WESTERN EXTENT OF SOUTH AREA SOILS⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 16 of RI/FS Work Plan ⁽²⁾							PSV	Potential Background Values		Extent Evaluation Comparison Value
	EPA Region 6 Soil Screening Criteria ⁽³⁾	TotSoil _{Comb} ⁽⁴⁾	GWSoil _{Class 3} ⁽⁵⁾	AirSoil _{Inh-V} ⁽⁶⁾	AirGWSoil _{Inh-V} ⁽⁷⁾	EPA Ecological Soil Screening Level ⁽⁸⁾	TCEQ Ecological Benchmark ⁽⁹⁾		TCEQ ⁽¹¹⁾	Site-Specific ⁽¹²⁾	
Endrin	1.8E+01	8.7E+00	3.8E+01	2.4E+02	7.9E+04	---	---	8.7E+00	---	---	8.7E+00
Endrin aldehyde	---	1.9E+01	3.1E+04	---	---	---	---	1.9E+01	---	---	1.9E+01
Endrin ketone	---	1.9E+01	2.5E+03	9.7E+02	1.0E+06	---	---	1.9E+01	---	---	1.9E+01
gamma-BHC (Lindane)	4.4E-01	1.1E+00	4.6E-01	3.0E+02	2.5E+04	---	---	4.4E-01	---	---	4.4E-01
gamma-Chlordane	---	7.3E+00	2.1E+03	5.0E+02	1.6E+05	---	---	7.3E+00	---	---	7.3E+00
Heptachlor	1.1E-01	1.3E-01	9.4E+00	4.7E+00	1.9E+02	---	---	1.1E-01	---	---	1.1E-01
Heptachlor epoxide	5.3E-02	2.4E-01	2.9E+00	1.2E+01	2.2E+03	---	---	5.3E-02	---	---	5.3E-02
Methoxychlor	3.1E+02	2.7E+02	6.2E+03	1.6E+04	1.0E+06	---	---	2.7E+02	---	---	2.7E+02
Toxaphene	4.4E-01	1.2E+00	5.8E+02	4.9E+02	4.4E+05	---	---	4.4E-01	---	---	4.4E-01
PCBs	2.2E-01	1.1E+00	5.3E+02	2.8E+01	4.0E+03	---	---	2.2E-01	---	---	2.2E-01
Aroclor-1016	3.9E+00	---	---	---	---	---	---	3.9E+00	---	---	3.9E+00
Aroclor-1221	2.2E-01	---	---	---	---	---	---	2.2E-01	---	---	2.2E-01
Aroclor-1232	2.2E-01	---	---	---	---	---	---	2.2E-01	---	---	2.2E-01
Aroclor-1242	2.2E-01	---	---	---	---	---	---	2.2E-01	---	---	2.2E-01
Aroclor-1248	2.2E-01	---	---	---	---	---	---	2.2E-01	---	---	2.2E-01
Aroclor-1254	2.2E-01	---	---	---	---	---	---	2.2E-01	---	---	2.2E-01
Aroclor-1260	2.2E-01	---	---	---	---	---	---	2.2E-01	---	---	2.2E-01
VOCs											
1,1,1,2-Tetrachloroethane	3.0E+00	3.9E+01	7.1E+01	4.7E+01	2.9E+02	---	---	3.0E+00	---	---	3.0E+00
1,1,1-Trichloroethane	1.4E+03	3.2E+04 ⁽¹³⁾	8.1E+01	4.0E+04 ⁽¹³⁾	2.1E+04 ⁽¹³⁾	---	---	8.1E+01	---	---	8.1E+01
1,1,2,2-Tetrachloroethane	3.8E-01	4.0E+00	1.2E+00	4.6E+00	1.4E+01	---	---	3.8E-01	---	---	3.8E-01
1,1,2-Trichloroethane	8.4E-01	1.0E+01	1.0E+00	1.2E+01	2.1E+01	---	---	8.4E-01	---	---	8.4E-01
1,1-Dichloroethane	5.9E+02	6.5E+02	4.6E+01	3.2E+03	1.8E+03	---	---	4.6E+01	---	---	4.6E+01
1,1-Dichloroethylene	2.8E+02	2.6E+03 ⁽¹³⁾	9.2E+02 ⁽¹³⁾	2.7E+03 ⁽¹³⁾	7.7E+02 ⁽¹³⁾	---	---	2.8E+02	---	---	2.8E+02
1,1-Dichloropropene	---	2.6E+01	6.7E+00	4.6E+01	1.8E+01	---	---	6.7E+00	---	---	6.7E+00
1,2,3-Trichloropropane	1.4E-03	8.7E-01	1.1E-01	1.4E+03	7.3E+03	---	---	1.4E-03	---	---	1.4E-03
1,2,4-Trichlorobenzene	6.8E+01	6.1E+02 ⁽¹³⁾	2.4E+02	7.8E+03 ⁽¹³⁾	6.9E+04 ⁽¹³⁾	---	2.0E+01	2.0E+01	---	---	2.0E+01
1,2,4-Trimethylbenzene	5.2E+01	8.0E+01 ⁽¹³⁾	2.4E+03	8.1E+01 ⁽¹³⁾	4.9E+02 ⁽¹³⁾	---	---	5.2E+01	---	---	5.2E+01
1,2-Dibromo-3-chloropropane	4.6E-01	8.0E-02 ⁽¹³⁾	8.7E-02	8.1E-02 ⁽¹³⁾	3.5E-01 ⁽¹³⁾	---	---	8.0E-02	---	---	8.0E-02
1,2-Dibromoethane	2.8E-02	4.3E-01 ⁽¹³⁾	1.0E-02	5.0E-01 ⁽¹³⁾	1.5E+00 ⁽¹³⁾	---	---	1.0E-02	---	---	1.0E-02
1,2-Dichlorobenzene	2.8E+02	3.9E+02	8.9E+02	4.1E+02	2.2E+03	---	---	2.8E+02	---	---	2.8E+02
1,2-Dichloroethane	3.5E-01	6.4E+00	6.9E-01	7.1E+00	5.9E+00	---	---	3.5E-01	---	---	3.5E-01
1,2-Dichloropropane	3.5E-01	3.1E+01	1.1E+00	3.2E+01	3.4E+01	---	7.0E+02	3.5E-01	---	---	3.5E-01
1,3,5-Trimethylbenzene	2.1E+01	5.9E+01	2.7E+03	6.0E+01	3.5E+02	---	---	2.1E+01	---	---	2.1E+01
1,3-Dichlorobenzene	9.3E+01	6.2E+01	3.4E+02	6.3E+01	1.1E+02	---	---	6.2E+01	---	---	6.2E+01
1,3-Dichloropropane	---	2.6E+01	3.2E+00	4.6E+01	1.2E+02	---	---	3.2E+00	---	---	3.2E+00
1,4-Dichlorobenzene	3.2E+00	2.5E+02	1.1E+02	1.3E+03 ⁽¹³⁾	6.5E+03 ⁽¹³⁾	---	2.0E+01	3.2E+00	---	---	3.2E+00
2,2-Dichloropropane	---	3.1E+01	6.0E+00	3.2E+01	3.3E+01	---	---	6.0E+00	---	---	6.0E+00
2-Butanone	3.2E+04	2.7E+04	1.5E+03	5.9E+04	3.5E+05	---	---	1.5E+03	---	---	1.5E+03
2-Chloroethylvinyl ether	---	2.3E+00	1.4E-01	2.4E+00	4.4E+00	---	---	1.4E-01	---	---	1.4E-01
2-Chlorotoluene	1.6E+02	8.3E+02	4.5E+02	2.2E+03	9.2E+03	---	---	1.6E+02	---	---	1.6E+02

TABLE 7 - EXTENT EVALUATION COMPARISON VALUES - WESTERN EXTENT OF SOUTH AREA SOILS⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 16 of RI/FS Work Plan ⁽²⁾							PSV	Potential Background Values		Extent Evaluation Comparison Value
	EPA Region 6 Soil Screening Criteria ⁽³⁾	TotSoil _{Comb} ⁽⁴⁾	GWSoil _{Class 3} ⁽⁵⁾	AirSoil _{Inh-V} ⁽⁶⁾	AirGWSoil _{Inh-V} ⁽⁷⁾	EPA Ecological Soil Screening Level ⁽⁸⁾	TCEQ Ecological Benchmark ⁽⁹⁾		TCEQ ⁽¹¹⁾	Site-Specific ⁽¹²⁾	
2-Hexanone	---	5.6E+01	1.9E+02	5.7E+01	2.6E+02	---	---	5.6E+01	---	---	5.6E+01
4-Chlorotoluene	---	2.5E+00	1.9E+03 ⁽¹³⁾	2.5E+00	1.1E+01	---	---	2.5E+00	---	---	2.5E+00
4-Isopropyltoluene	---	2.5E+03	1.2E+04	3.5E+03	2.8E+04	---	---	2.5E+03	---	---	2.5E+03
4-Methyl-2-pentanone	5.8E+03	5.4E+03	2.5E+02	3.0E+04	1.1E+05	---	---	2.5E+02	---	---	2.5E+02
Acetone	7.0E+04	5.4E+03	2.1E+03	5.8E+03	3.2E+04	---	---	2.1E+03	---	---	2.1E+03
Acrolein	1.0E-01	5.7E-01	1.2E+00	5.8E-01	8.8E+00	---	---	1.0E-01	---	---	1.0E-01
Acrylonitrile	2.1E-01	2.2E+00	1.7E-01	2.7E+00	7.4E+00	---	---	1.7E-01	---	---	1.7E-01
Benzene	6.6E-01	4.8E+01 ⁽¹³⁾	1.3E+00	8.4E+01 ⁽¹³⁾	6.0E+01 ⁽¹³⁾	---	---	6.6E-01	---	---	6.6E-01
Bromobenzene	7.3E+01	7.9E+01 ⁽¹³⁾	2.9E+02	8.3E+01 ⁽¹³⁾	2.9E+02 ⁽¹³⁾	---	---	7.3E+01	---	---	7.3E+01
Bromodichloromethane	1.0E+00	9.8E+01	3.3E+00	---	---	---	---	1.0E+00	---	---	1.0E+00
Bromoform	6.2E+01	2.8E+02	3.2E+01	4.3E+02	1.8E+03	---	---	3.2E+01	---	---	3.2E+01
Bromomethane	3.9E+00	2.9E+01	6.5E+00	3.9E+01	1.1E+01	---	---	3.9E+00	---	---	3.9E+00
Butanol	6.1E+03	1.8E+03	2.6E+02	2.3E+03	2.7E+04	---	---	2.6E+02	---	---	2.6E+02
Carbon disulfide	7.2E+02	3.3E+03	6.8E+02	5.5E+03	1.7E+03	---	---	6.8E+02	---	---	6.8E+02
Carbon tetrachloride	2.4E-01	9.7E+00	3.1E+00	1.2E+01	6.3E+00	---	---	2.4E-01	---	---	2.4E-01
Chlorobenzene	3.2E+02	3.2E+02 ⁽¹³⁾	5.5E+01	4.0E+02 ⁽¹³⁾	8.2E+02 ⁽¹³⁾	---	4.0E+01	4.0E+01	---	---	4.0E+01
Chloroethane	3.0E+00	2.3E+04	1.5E+03	7.9E+04	2.4E+04	---	---	3.0E+00	---	---	3.0E+00
Chloroform	2.5E-01	8.0E+00	5.1E+01	8.0E+00	5.4E+00	---	---	2.5E-01	---	---	2.5E-01
Chloromethane	1.3E+00	8.4E+01	2.0E+01	1.0E+02	1.4E+01	---	---	1.3E+00	---	---	1.3E+00
cis-1,2-Dichloroethene	4.3E+01	7.2E+02	1.2E+01	6.3E+03	3.7E+03	---	---	1.2E+01	---	---	1.2E+01
cis-1,3-Dichloropropene	---	7.1E+00	3.3E-01	5.3E+01	5.9E+01	---	---	3.3E-01	---	---	3.3E-01
Cyclohexane	6.8E+03	4.2E+04	2.9E+05	4.7E+04	1.8E+04	---	---	6.8E+03	---	---	6.8E+03
Dibromochloromethane	1.0E+00	7.2E+01	2.5E+00	---	---	---	---	1.0E+00	---	---	1.0E+00
Dibromomethane	1.4E+02	1.4E+02	5.6E+01	1.4E+02	4.7E+02	---	---	5.6E+01	---	---	5.6E+01
Dichlorodifluoromethane	9.4E+01	1.2E+04	1.2E+04	3.9E+04	9.4E+03	---	---	9.4E+01	---	---	9.4E+01
Ethylbenzene	2.3E+02	4.0E+03	3.8E+02	7.9E+03	1.1E+04	---	---	2.3E+02	---	---	2.3E+02
Hexachlorobutadiene	6.2E+00	1.2E+01	1.6E+02 ⁽¹³⁾	1.5E+01	1.6E+02	---	---	6.2E+00	---	---	6.2E+00
Isopropylbenzene (Cumene)	3.7E+02	3.0E+03	1.7E+04	4.8E+03	4.0E+04	---	---	3.7E+02	---	---	3.7E+02
Methyl acetate	2.2E+04	4.5E+03	2.4E+03	4.7E+03	1.7E+04	---	---	2.4E+03	---	---	2.4E+03
Methyl iodide	---	5.2E+01	5.7E+00	9.5E+01	3.6E+01	---	---	5.7E+00	---	---	5.7E+00
Methylcyclohexane	1.4E+02	2.2E+04	7.8E+05	2.4E+04	1.2E+04	---	---	1.4E+02	---	---	1.4E+02
Methylene chloride	8.9E+00	2.6E+02	6.5E-01	3.9E+02	2.2E+02	---	---	6.5E-01	---	---	6.5E-01
Naphthalene	1.2E+02	1.2E+02	1.6E+03	1.4E+02	1.3E+03	---	---	1.2E+02	---	---	1.2E+02
n-Butylbenzene	1.4E+02	1.5E+03	6.1E+03	3.4E+03	2.9E+04	---	---	1.4E+02	---	---	1.4E+02
n-Propylbenzene	1.4E+02	1.6E+03	2.2E+03	3.3E+03	1.8E+04	---	---	1.4E+02	---	---	1.4E+02
o-Xylene	2.8E+02	5.6E+03 ⁽¹³⁾	3.5E+03	5.8E+03 ⁽¹³⁾	5.7E+04 ⁽¹³⁾	---	---	2.8E+02	---	---	2.8E+02
sec-Butylbenzene	1.1E+02	1.6E+03	4.2E+03	2.9E+03	2.2E+04	---	---	1.1E+02	---	---	1.1E+02
Styrene	1.7E+03	4.3E+03 ⁽¹³⁾	1.6E+02	5.8E+03 ⁽¹³⁾	3.2E+04 ⁽¹³⁾	---	3.0E+02 +	1.6E+02	---	---	1.6E+02
tert-Butyl methyl ether (MTBE)	1.7E+01	5.9E+02	3.1E+01	7.1E+02	6.6E+02	---	---	1.7E+01	---	---	1.7E+01
tert-Butylbenzene	1.3E+02	1.4E+03	5.0E+03	2.4E+03	1.6E+04	---	---	1.3E+02	---	---	1.3E+02

TABLE 7 - EXTENT EVALUATION COMPARISON VALUES - WESTERN EXTENT OF SOUTH AREA SOILS⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 16 of RI/FS Work Plan ⁽²⁾							PSV	Potential Background Values		Extent Evaluation Comparison Value
	EPA Region 6 Soil Screening Criteria ⁽³⁾	TotSoil _{Comb} ⁽⁴⁾	GWSoil _{Class 3} ⁽⁵⁾	AirSoil _{Inh-V} ⁽⁶⁾	AirGWSoil _{Inh-V} ⁽⁷⁾	EPA Ecological Soil Screening Level ⁽⁸⁾	TCEQ Ecological Benchmark ⁽⁹⁾		TCEQ ⁽¹¹⁾	Site-Specific ⁽¹²⁾	
Tetrachloroethene	5.5E-01	9.4E+01 ⁽¹³⁾	2.5E+00	4.8E+02 ⁽¹³⁾	3.2E+02 ⁽¹³⁾	---	---	5.5E-01	---	---	5.5E-01
Toluene	5.2E+02	5.4E+03 ⁽¹³⁾	4.1E+02	3.2E+04 ⁽¹³⁾	3.4E+04 ⁽¹³⁾	---	2.0E+02 +	2.0E+02	---	---	2.0E+02
trans-1,2-Dichloroethene	6.3E+01	3.7E+02 ⁽¹³⁾	2.5E+01	4.7E+02 ⁽¹³⁾	2.4E+02 ⁽¹³⁾	---	---	2.5E+01	---	---	2.5E+01
trans-1,3-Dichloropropene	---	2.6E+01	1.8E+00	4.6E+01	4.8E+01	---	---	1.8E+00	---	---	1.8E+00
trans-1,4-Dichloro-2-butene	---	1.7E-01	---	1.7E-01	6.9E-01	---	---	1.7E-01	---	---	1.7E-01
Trichloroethene	4.3E-02	9.1E+01	1.7E+00	1.1E+02	7.1E+01	---	---	4.3E-02	---	---	4.3E-02
Trichlorofluoromethane	3.9E+02	1.2E+04	6.4E+03	2.2E+04	4.6E+03	---	---	3.9E+02	---	---	3.9E+02
Trichlorotrifluoroethane	5.6E+03	2.2E+05	1.0E+06	2.4E+05	6.5E+04	---	---	5.6E+03	---	---	5.6E+03
Vinyl acetate	4.3E+02	1.5E+03	2.7E+03	1.6E+03	2.0E+03	---	---	4.3E+02	---	---	4.3E+02
Vinyl chloride	4.3E-02	3.4E+00	1.1E+00	2.2E+01 ⁽¹³⁾	2.7E+00 ⁽¹³⁾	---	---	4.3E-02	---	---	4.3E-02
Xylene (total)	2.1E+02	3.7E+03 ⁽¹³⁾	6.1E+03	4.8E+03 ⁽¹³⁾	8.1E+03 ⁽¹³⁾	---	---	2.1E+02	---	---	2.1E+02
SVOCs											
1,2Diphenylhydrazine/Azobenzen	6.1E-01	3.6E+01 ⁽¹³⁾	8.8E+02 ⁽¹³⁾	7.1E+02 ⁽¹³⁾	9.4E+04 ⁽¹³⁾	---	---	6.1E-01	---	---	6.1E-01
2,4,5-Trichlorophenol	6.1E+03	4.1E+03	1.7E+03	1.1E+04	4.1E+05	---	4.0E+00 +	4.0E+00	---	---	4.0E+00
2,4,6-Trichlorophenol	4.4E+01	6.7E+01 ⁽¹³⁾	8.8E+00 ⁽¹³⁾	1.0E+03	2.3E+04	---	1.0E+01	8.8E+00	---	---	8.8E+00
2,4-Dichlorophenol	1.8E+02	1.9E+02	1.8E+01	6.8E+03	1.7E+05	---	---	1.8E+01	---	---	1.8E+01
2,4-Dimethylphenol	1.2E+03	8.8E+02	1.6E+02	2.6E+03	7.0E+04	---	---	1.6E+02	---	---	1.6E+02
2,4-Dinitrophenol	1.2E+02	1.3E+02	4.7E+00	---	---	---	2.0E+01 +	4.7E+00	---	---	4.7E+00
2,4-Dinitrotoluene	1.2E+02	6.9E+00	2.7E-01	1.5E+01	3.1E+02	---	---	2.7E-01	---	---	2.7E-01
2,6-Dinitrotoluene	6.1E+01	6.9E+00	2.4E-01	2.2E+01	7.3E+02	---	---	2.4E-01	---	---	2.4E-01
2-Chloronaphthalene	3.9E+03	5.0E+03	3.3E+04	---	---	---	---	3.9E+03	---	---	3.9E+03
2-Chlorophenol	6.4E+01	3.6E+02	8.2E+01	3.2E+03	5.3E+04	---	---	6.4E+01	---	---	6.4E+01
2-Methylnaphthalene	---	2.5E+02	8.5E+02	---	---	---	---	2.5E+02	---	---	2.5E+02
2-Nitroaniline	1.8E+02	1.2E+01 ⁽¹³⁾	1.1E+01 ⁽¹³⁾	2.4E+01 ⁽¹³⁾	7.7E+02 ⁽¹³⁾	---	---	1.1E+01	---	---	1.1E+01
2-Nitrophenol	---	1.0E+02	6.7E+00	4.1E+02	1.2E+04	---	---	6.7E+00	---	---	6.7E+00
3,3'-Dichlorobenzidine	1.1E+00	1.0E+01	3.1E+00	---	---	---	---	1.1E+00	---	---	1.1E+00
3-Nitroaniline	---	1.9E+01	1.3E+00	4.6E+02	1.6E+04	---	---	1.3E+00	---	---	1.3E+00
4,6-Dinitro-2-methylphenol	---	5.2E+00 ⁽¹³⁾	2.3E-01 ⁽¹³⁾	2.4E+01	1.0E+03	---	---	2.3E-01	---	---	2.3E-01
4-Bromophenyl phenyl ether	---	2.7E-01	1.8E+01	5.0E+00	5.9E+02	---	---	2.7E-01	---	---	2.7E-01
4-Chloro-3-methylphenol	---	3.3E+02	2.3E+02	1.8E+04	1.0E+06	---	---	2.3E+02	---	---	2.3E+02
4-Chloroaniline	2.4E+02	2.3E+01 ⁽¹³⁾	1.0E+00 ⁽¹³⁾	7.4E+02	2.0E+04	---	---	1.0E+00	---	---	1.0E+00
4-Chlorophenyl phenyl ether	---	1.5E-01	1.6E+00	1.3E+00	4.2E+01	---	---	1.5E-01	---	---	1.5E-01
4-Nitroaniline	---	1.9E+02 ⁽¹³⁾	5.4E+00 ⁽¹³⁾	6.2E+02 ⁽¹³⁾	2.2E+04 ⁽¹³⁾	---	---	5.4E+00	---	---	5.4E+00
4-Nitrophenol	4.9E+02	5.1E+01	5.0E+00	8.3E+01	3.1E+03	---	7.0E+00	5.0E+00	---	---	5.0E+00
Acenaphthene	3.7E+03	3.0E+03	1.2E+04	---	---	---	2.0E+01 +	2.0E+01	---	---	2.0E+01
Acenaphthylene	---	3.8E+03	2.0E+04	---	---	---	---	3.8E+03	---	---	3.8E+03
Acetophenone	1.7E+03	1.8E+03	4.1E+02	2.5E+03	3.0E+04	---	---	4.1E+02	---	---	4.1E+02
Aniline	8.5E+01	5.9E+01	1.8E+01	6.7E+01	1.6E+03	---	---	1.8E+01	---	---	1.8E+01
Anthracene	2.2E+04	1.8E+04	3.4E+05	---	---	---	---	1.8E+04	---	---	1.8E+04
Atrazine (Aatrex)	2.2E+00	2.1E+01	1.2E+00	1.7E+03	9.8E+04	---	---	1.2E+00	---	---	1.2E+00

TABLE 7 - EXTENT EVALUATION COMPARISON VALUES - WESTERN EXTENT OF SOUTH AREA SOILS⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 16 of RI/FS Work Plan ⁽²⁾							PSV	Potential Background Values		Extent Evaluation Comparison Value
	EPA Region 6 Soil Screening Criteria ⁽³⁾	TotSoil _{Comb} ⁽⁴⁾	GWSoil _{Class 3} ⁽⁵⁾	AirSoil _{Inh-V} ⁽⁶⁾	AirGWSoil _{Inh-V} ⁽⁷⁾	EPA Ecological Soil Screening Level ⁽⁸⁾	TCEQ Ecological Benchmark ⁽⁹⁾		TCEQ ⁽¹¹⁾	Site-Specific ⁽¹²⁾	
Benzaldehyde	6.1E+03	2.4E+02	5.3E+02	2.5E+02	1.4E+03	---	---	2.4E+02	---	---	2.4E+02
Benzidine	2.1E-03	1.3E-02	5.5E-04	3.2E-02	1.2E+00	---	---	5.5E-04	---	---	5.5E-04
Benzo(a)anthracene	6.2E-01	5.6E+00	8.9E+02	1.9E+03	1.0E+06	---	---	6.2E-01	---	---	6.2E-01
Benzo(a)pyrene	6.2E-02	5.6E-01	3.8E+02	4.4E+02	9.6E+05	---	---	6.2E-02	---	---	6.2E-02
Benzo(b)fluoranthene	6.2E-01	5.7E+00	3.0E+03	3.2E+03	1.0E+06	---	---	6.2E-01	---	---	6.2E-01
Benzo(g,h,i)perylene	---	1.8E+03	1.0E+06	---	---	---	---	1.8E+03	---	---	1.8E+03
Benzo(k)fluoranthene	6.2E+00	5.7E+01	3.1E+04	7.8E+04	1.0E+06	---	---	6.2E+00	---	---	6.2E+00
Benzoic acid	1.0E+05	3.5E+02	9.5E+03	3.5E+02	1.3E+04	---	---	3.5E+02	---	---	3.5E+02
Benzyl alcohol	1.8E+04	4.0E+03 ⁽¹³⁾	1.5E+03 ⁽¹³⁾	4.6E+03	1.4E+05	---	---	1.5E+03 ⁽¹³⁾	---	---	1.5E+03 ⁽¹³⁾
Biphenyl	3.0E+03	1.3E+02	1.3E+04	1.4E+02	2.7E+03	---	6.0E+01 +	6.0E+01	---	---	6.0E+01
Bis(2-Chloroethoxy)methane	---	2.5E+00	5.9E-01	5.8E+00	7.4E+01	---	---	5.9E-01	---	---	5.9E-01
Bis(2-Chloroethyl)ether	2.1E-01	1.4E+00	1.1E-01	1.8E+00	1.5E+01	---	---	1.1E-01	---	---	1.1E-01
Bis(2-Chloroisopropyl)ether	---	4.1E+01	9.5E+00	1.1E+02	8.2E+02	---	---	9.5E+00	---	---	9.5E+00
Bis(2-Ethylhexyl)phthalate	3.5E+01	4.3E+01	8.2E+03	---	---	---	---	3.5E+01	---	---	3.5E+01
Butyl benzyl phthalate	2.4E+02	1.6E+03 ⁽¹³⁾	1.3E+04 ⁽¹³⁾	1.3E+04	1.0E+06	---	---	2.4E+02	---	---	2.4E+02
Caprolactam	3.1E+04	1.7E+02	2.3E+03	1.7E+02	6.1E+03	---	---	1.7E+02	---	---	1.7E+02
Carbazole	2.4E+01	2.3E+02	2.3E+02	---	---	---	---	2.4E+01	---	---	2.4E+01
Chrysene	6.2E+01	5.6E+02	7.7E+04	3.0E+05	1.0E+06	---	---	6.2E+01	---	---	6.2E+01
Dibenz(a,h)anthracene	6.2E-02	5.5E-01	7.6E-02	1.0E+03	1.0E+06	---	---	6.2E-02	---	---	6.2E-02
Dibenzofuran	1.5E+02	2.7E+02	1.7E+03	---	---	---	---	1.5E+02	---	---	1.5E+02
Diethyl phthalate	4.9E+04	1.4E+03	7.8E+03	1.5E+03	7.0E+04	---	1.0E+02 +	1.0E+02	---	---	1.0E+02
Dimethyl phthalate	1.0E+05	6.6E+02	3.1E+03	6.7E+02	2.2E+04	---	2.0E+02	2.0E+02	---	---	2.0E+02
Di-n-butyl phthalate	6.1E+03	4.4E+03	1.7E+05	1.5E+04	1.0E+06	---	2.0E+02 +	2.0E+02	---	---	2.0E+02
Di-n-octyl phthalate	2.4E+03	1.3E+03 ⁽¹³⁾	1.0E+06	2.8E+05 ⁽¹³⁾	1.0E+06 ⁽¹³⁾	---	---	1.3E+03 ⁽¹³⁾	---	---	1.3E+03 ⁽¹³⁾
Fluoranthene	2.3E+03	2.3E+03	9.6E+04	---	---	---	---	2.3E+03	---	---	2.3E+03
Fluorene	2.6E+03	2.3E+03	1.5E+04	---	---	---	3.0E+01	3.0E+01	---	---	3.0E+01
Hexachlorobenzene	3.0E-01	1.0E+00	5.6E+01	9.8E+00	4.2E+02	---	---	3.0E-01	---	---	3.0E-01
Hexachlorocyclopentadiene	3.7E+02	7.2E+00	9.6E+02	7.3E+00	1.4E+02	---	1.0E+01 +	7.2E+00	---	---	7.2E+00
Hexachloroethane	3.5E+01	6.7E+01	9.2E+01	5.0E+02	6.9E+03	---	---	3.5E+01	---	---	3.5E+01
Indeno(1,2,3-cd)pyrene	6.2E-01	5.7E+00	8.7E+03	1.3E+04	1.0E+06	---	---	6.2E-01	---	---	6.2E-01
Isophorone	5.1E+02	1.2E+03	1.5E+02	1.4E+03	2.1E+04	---	---	1.5E+02	---	---	1.5E+02
Nitrobenzene	2.0E+01	3.4E+01 ⁽¹³⁾	1.8E+01 ⁽¹³⁾	3.4E+01 ⁽¹³⁾	3.4E+02 ⁽¹³⁾	---	4.0E+01	1.8E+01	---	---	1.8E+01
n-Nitrosodimethylamine	9.5E-03	5.5E-02 ⁽¹³⁾	1.8E-03 ⁽¹³⁾	1.0E-01 ⁽¹³⁾	2.7E+00 ⁽¹³⁾	---	---	1.8E-03	---	---	1.8E-03
n-Nitrosodi-n-propylamine	7.0E-02	4.0E-01	1.8E-02	---	---	---	---	1.8E-02	---	---	1.8E-02
n-Nitrosodiphenylamine	9.9E+01	5.7E+02	1.4E+02	---	---	---	2.0E+01	2.0E+01	---	---	2.0E+01
o-Cresol	3.1E+03	1.0E+03	3.6E+02	1.5E+03	3.8E+04	---	---	3.6E+02	---	---	3.6E+02
Pentachlorophenol	3.0E+00	2.4E+00	9.2E-01	2.3E+02	1.6E+04	1.8E-03 **	5.0E+00 +	1.8E-03	---	---	1.8E-03
Phenanthrene	---	1.7E+03	2.1E+04	---	---	---	---	1.7E+03	---	---	1.7E+03

TABLE 7 - EXTENT EVALUATION COMPARISON VALUES - WESTERN EXTENT OF SOUTH AREA SOILS⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 16 of RI/FS Work Plan ⁽²⁾							PSV	Potential Background Values		Extent Evaluation Comparison Value
	EPA Region 6 Soil Screening Criteria ⁽³⁾	TotSoil _{Comb} ⁽⁴⁾	GWSoil _{Class 3} ⁽⁵⁾	AirSoil _{Inh-V} ⁽⁶⁾	AirGWSoil _{Inh-V} ⁽⁷⁾	EPA Ecological Soil Screening Level ⁽⁸⁾	TCEQ Ecological Benchmark ⁽⁹⁾		TCEQ ⁽¹¹⁾	Site-Specific ⁽¹²⁾	
Phenol	1.8E+04	1.6E+03	9.6E+02	1.7E+03	4.7E+04	---	3.0E+01	3.0E+01	---	---	3.0E+01
Pyrene	2.3E+03	1.7E+03	5.6E+04	---	---	---	---	1.7E+03	---	---	1.7E+03
Pyridine	6.1E+01	4.8E+01	3.5E+00	1.2E+02	4.1E+01	---	---	3.5E+00	---	---	3.5E+00
Sulfate	---	---	---	---	---	---	---	NV	---	---	NV
Chloride	---	---	---	---	---	---	---	NV	---	---	NV

Notes:

1. All values in mg/kg.
2. Values from Table 16 of RI/FS Work Plan (updated to reflect changes in toxicity data since 2005 where applicable).
3. From EPA's "Region 6 Human Health Medium-Specific Screening Levels 2004-2005". Residential Value.
4. $\text{TotSoil}_{\text{Comb}}$ PCL = TCEQ Protective Concentration Level for 30 acre source area Residential total soil combined pathway (includes inhalation; ingestion; dermal pathways).
5. $\text{GWSoil}_{\text{Class 3}}$ PCL = TCEQ Protective Concentration Level for 30 acre source area Residential soil-to-groundwater leaching for Class 3 groundwater pathway.
6. $\text{AirSoil}_{\text{Inh-V}}$ PCL = TCEQ Protective Concentration Level for 30 acre source area Residential soil-to-air pathway (inhalation of volatiles and particulates).
7. $\text{AirGWSoil}_{\text{Inh-V}}$ PCL = TCEQ Protective Concentration Level for 30 acre source area Residential soil and groundwater-to-air pathway (inhalation of volatiles and particulates).
8. From EPA's "Ecological Soil Screening Level". Values indicated with "*" are based on soil Invertebrates. Values indicated with "**" are based on avian wildlife.
Values indicated with "***" are based on mammalian wildlife. All other values are based on plants.
9. From Table 3-4 of TCEQ "Guidance for Conducting Ecological Risk Assessments at Remediation Sites in Texas". Values indicated with "+" are based on plant exposure.
All other values are based on earthworm exposure.
10. NV = No Preliminary Screening Value.
11. From 30 TAC 350.51(m)
12. 95% UTL calculated from site-specific background samples.
13. Updated from Table 16 of RI/FS Workplan to reflect changes in toxicity data from 2005 to 2009 indicated in TCEQ PCL tables.
14. Updated from Table 16 of RI/FS Workplan to reflect revised reference dose for iron.

**TABLE 8 - DETECTED RI SOIL SAMPLE CONCENTRATIONS
EXCEEDING EXTENT EVALUATION COMPARISON VALUES - WESTERN EXTENT OF SOUTH AREA**

Sample Location	Sample Depth (ft)	Chemical of Interest	Concentration (mg/kg)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/kg)
PHASE I SAMPLES				
SA1SB15	0-0.5	Benzo(a)anthracene	2.28J ⁽²⁾	0.62
		Benzo(a)pyrene	3.6J	0.062
		Benzo(b)fluoranthene	2.27J	0.62
		Copper	105	61
		Dibenz(a,h)anthracene	0.313	0.062
		Indeno(1,2,3-cd)pyrene	1.39J	0.62
		Lead	208	17.93
	1-2	Zinc	877	280
		Benzo(a)anthracene	4.21J	0.62
		Benzo(a)pyrene	4.88J	0.062
		Benzo(b)fluoranthene	5.34J	0.62
		Copper	73.2	61
		Dibenz(a,h)anthracene	0.817	0.062
		Indeno(1,2,3-cd)pyrene	4.37J	0.62
		Lead	395	17.93
		Zinc	1090	280

**TABLE 8 - DETECTED RI SOIL SAMPLE CONCENTRATIONS
EXCEEDING EXTENT EVALUATION COMPARISON VALUES - WESTERN EXTENT OF SOUTH AREA**

Sample Location	Sample Depth (ft)	Chemical of Interest	Concentration (mg/kg)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/kg)
SA2SB16	0-0.5	Benzo(a)anthracene	1.29J	0.62
		Benzo(a)pyrene	1.95J	0.062
		Benzo(b)fluoranthene	2.05J	0.62
		Chromium	40.6	30
		Dibenz(a,h)anthracene	0.347	0.062
		Indeno(1,2,3-cd)pyrene	1.44J	0.62
		Lead	45.8	17.93
	1-2	Aroclor-1254	3.42	0.22
		Benzo(a)anthracene	1.71J	0.62
		Benzo(a)pyrene	2.13J	0.062
		Benzo(b)fluoranthene	2.76J	0.62
		Chromium	45.6	30
		Copper	128	61
		Dibenz(a,h)anthracene	0.322	0.062
		Indeno(1,2,3-cd)pyrene	1.31J	0.62
		Lead	702	17.93
		Molybdenum	10.4	2
		Zinc	525	280

**TABLE 8 - DETECTED RI SOIL SAMPLE CONCENTRATIONS
EXCEEDING EXTENT EVALUATION COMPARISON VALUES - WESTERN EXTENT OF SOUTH AREA**

Sample Location	Sample Depth (ft)	Chemical of Interest	Concentration (mg/kg)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/kg)
SA3SB17	0-0.5	Benzo(a)anthracene	2.41J	0.62
		Benzo(a)pyrene	3.41J	0.062
		Benzo(b)fluoranthene	4.66J	0.62
		Copper	207	61
		Dibenz(a,h)anthracene	0.465	0.062
		Indeno(1,2,3-cd)pyrene	1.47J	0.62
		Molybdenum	2.24	2
		Zinc	412	280
	1-2	Aroclor-1254	11.5	0.22
		Benzo(a)pyrene	0.608J	0.062
		Benzo(b)fluoranthene	0.835J	0.62
		Copper	487	61
		Dibenz(a,h)anthracene	0.177	0.062
		Lead	252	17.93
		Mercury	0.85	0.1
		Zinc	865	280
SA4SB18	0-0.5	Aroclor-1254	0.734J+	0.22
		Barium	540J	10
		Benzo(a)pyrene	0.329J	0.062
		Lead	146J	17.93
		Zinc	414	280
SA5SB19	0-0.5	Aroclor-1254	0.457	0.22
		Arsenic	11.5	8.66
		Benzo(a)pyrene	0.371J	0.062
		Lead	152J	17.93
		Molybdenum	2.69J-	2
		Zinc	412	280
SA6SB20	0-0.5	Dibenz(a,h)anthracene	0.132	0.062

**TABLE 8 - DETECTED RI SOIL SAMPLE CONCENTRATIONS
EXCEEDING EXTENT EVALUATION COMPARISON VALUES - WESTERN EXTENT OF SOUTH AREA**

Sample Location	Sample Depth (ft)	Chemical of Interest	Concentration (mg/kg)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/kg)
PHASE 2 SAMPLES				
L20SB01	0-0.5	Benzo(a)pyrene	0.283	0.062
	1-2	Lead	19J	17.93
L20SB02	0-0.5	Lead	19.7J	17.93
L20SB04	0-0.5	Copper	73J	61
		Lead	116J	17.93
		Mercury	0.72	0.1
		Zinc	453J	280
L20SB05	0-0.5	Benzo(a)pyrene	0.759	0.062
		Lead	108J	17.93
		Zinc	781J	280
L20SB06	0-0.5	Aroclor-1254	0.836	0.22
		Benzo(a)pyrene	0.394	0.062
		Lead	290J	17.93
		Zinc	942J	280
L20SB07	0-0.5	Aroclor-1254	1.02	0.22
		Benzo(a)pyrene	0.776	0.062
		Dibenz(a,h)anthracene	0.235	0.062
		Lead	985J	17.93
		Zinc	6,510J	280

Notes:

(1) Extent Evaluation Comparison Values from Table 15 of RI Report.

(2) Data qualifiers: J = estimated value; J+ = estimated value, biased high; J- = estimated value, biased low.

**TABLE 9 - DETECTED RI SOIL SAMPLE CONCENTRATIONS
EXCEEDING EXTENT EVALUATION COMPARISON VALUES - VERTICAL EXTENT OF SOUTH AREA**

Sample Location	Sample Depth (ft)	Chemical of Interest	Concentration (mg/kg)	Extent Evaluation Comparison Value⁽¹⁾ (mg/kg)
SA1SB15	1-2	Benzo(a)anthracene	4.21J ⁽²⁾	2.3
		Benzo(a)pyrene	4.88J	0.23
		Benzo(b)fluoranthene	5.34J	2.3
		Dibenz(a,h)anthracene	0.817	0.23
		Indeno(1,2,3-cd)pyrene	4.37J	2.3
		Lead	395	151
SA2SB16	1-2	Aroclor-1254	3.42	0.83
		Benzo(a)pyrene	2.13J	0.23
		Benzo(b)fluoranthene	2.76J	2.3
		Dibenz(a,h)anthracene	0.322	0.23
		Lead	702	151
SA3SB17	1-2	Aroclor-1254	11.5	0.83
		Benzo(a)pyrene	0.608J	0.23
		Lead	252	151
		Mercury	0.85	0.391
SB2SB22	1-2	Aroclor-1254	2.84	0.83
		Benzo(a)pyrene	0.38J	0.23
SB4SB24	1-2	Aroclor-1254	2.73	0.83
		Benzo(a)pyrene	1.37J	0.23
		Dibenz(a,h)anthracene	0.324	0.23
SC3SB27	1-2	Dibenz(a,h)anthracene	0.606	0.23
SC4SB28	1-2	Benzo(a)pyrene	1.2J	0.23
		Lead	192J	151
SD3SB33	1-2	Benzo(a)pyrene	0.509J	0.23
SD5SB35	1-2	Aroclor-1254	1.41	0.83
		Benzo(a)anthracene	4.79	2.3
		Benzo(a)pyrene	4.45J	0.23
		Benzo(b)fluoranthene	5.97	2.3
		Dibenz(a,h)anthracene	1.23	0.23
		Indeno(1,2,3-cd)pyrene	2.79J	2.3
SF2SB44	1-2	Mercury	0.5	0.391
		Dibenz(a,h)anthracene	0.354J	0.23
SF3SB45	1-2	Arsenic	9.58	8.66
		Benzo(a)pyrene	0.966J	0.23
SF4SB46	1-2	Benzo(a)pyrene	0.921J	0.23
SG4SB56	1-2	Benzo(a)pyrene	0.248J	0.23
SG6SB59	1-2	Benzo(a)pyrene	0.276J	0.23
SI1SB69	1-2	Arsenic	9.38	8.66

Notes:

(1) Extent Evaluation Comparison Values from Table 17 of RI Report.

(2) Data qualifiers: J = estimated value.

TABLE 10 - SOUTH AREA PHASE 2 RI DEEP SOIL SAMPLE DATA

Sample Location	Sample Depth (ft)	Chemical of Interest	Concentration (mg/kg)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/kg)
SA1SB15	4-5	Benzo(a)anthracene	<0.00504	2.3
		Benzo(a)pyrene	0.0269 J ⁽²⁾	0.23
		Benzo(b)fluoranthene	0.0281 J	2.3
		Dibenz(a,h)anthracene	<0.00655	0.23
		Indeno(1,2,3-cd)pyrene	0.0236 J	2.3
		Lead	12.1	151
SA2SB16	4-5	Aroclor-1254	<0.00579	0.83
		Benzo(a)pyrene	<0.00866	0.23
		Benzo(b)fluoranthene	<0.0118	2.3
		Dibenz(a,h)anthracene	<0.00661	0.23
		Lead	7.88	151
SA3SB17	4-5	Aroclor-1254	<0.00614	0.83
		Benzo(a)pyrene	<0.00928	0.23
		Lead	11.7	151
		Mercury	<0.024	0.391
SB2SB22	4-5	Aroclor-1254	0.0769	0.83
		Benzo(a)pyrene	<0.00986	0.23
SB4SB24	4-5	Aroclor-1254	0.0203 J	0.83
		Benzo(a)pyrene	0.0311 J	0.23
		Dibenz(a,h)anthracene	<0.00734	0.23
SC3SB27	4-5	Dibenz(a,h)anthracene	<0.0068	0.23
SC4SB28	4-5	Benzo(a)pyrene	<0.00899	0.23
		Lead	11.3	151
SD3SB33	4-5	Benzo(a)pyrene	<0.00924	0.23
SD5SB35	4-5	Aroclor-1254	<0.00648	0.83
		Benzo(a)anthracene	<0.00567	2.3
		Benzo(a)pyrene	<0.00966	0.23
		Benzo(b)fluoranthene	<0.0132	2.3
		Dibenz(a,h)anthracene	<0.00737	0.23
		Indeno(1,2,3-cd)pyrene	<0.0141	2.3
SF2SB44	4-5	Mercury	<0.028	0.391
		Dibenz(a,h)anthracene	<0.00752	0.23
SF3SB45	4-5	Arsenic	0.25 J	8.66
		Benzo(a)pyrene	<0.00935	0.23
SF4SB46	4-5	Benzo(a)pyrene	<0.00949	0.23
SG4SB56	4-5	Benzo(a)pyrene	<0.00965	0.23
SG6SB59	4-5	Benzo(a)pyrene	<0.00906	0.23
SI1SB69	4-5	Arsenic	<0.13	8.66

Notes:

(1) Extent Evaluation Comparison Values from Table 17 of RI Report.

(2) Data qualifiers: J = estimated value.

**TABLE 11 - LOT 19 / 20 SOIL SAMPLE
LEAD CONCENTRATIONS**

Sample ID	Lead Concentration (mg/kg)
L19SS01	17.3
L19SS02	18.8
L19SS03	11.2
L19SS04	8.87
L19SS05	12.0
L19SS06	19.3
L19SS07	12.8
L19SS08	12.8
L19SS09	55.3
L19SS10	17.1
L19SS11	12.1
L19SS12	13.5
L19SS13	16.7
L19SS14	16.0
L19SS15	23.2
L19SS16	18.8
L19SS17	175
L20SS01	10.8
L20SS02	222
L20SS03	23.1
L20SS04	462
L20SS05	8.61
L20SS06	23.8
L20SS07	129
L20SS08	73.6
L20SS09	84.3
L20SS10	253

Notes:

1. Data Qualifiers: none.

TABLE 12 - EXTENT EVALUATION COMPARISON VALUES - INTRACOASTAL WATERWAY SEDIMENTS⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 21 of RI/FS Work Plan ⁽²⁾			PSV	Potential Site-Specific Background Values ⁽⁶⁾	Extent Evaluation Comparison Value
	TotSed _{Comb} ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
METALS						
Aluminum	1.5E+05	---	---	1.53E+05	3.31E+04	1.53E+05
Antimony	8.3E+01	---	---	8.32E+01	1.26E+01	8.32E+01
Arsenic	1.1E+02	8.20E+00	8.20E+00	8.20E+00	1.52E+01	1.52E+01
Barium	2.3E+04	---	---	8.00E+03	3.54E+02	8.00E+03
Beryllium	2.7E+01	---	---	2.66E+01	1.99E+00	2.66E+01
Boron	1.1E+05	---	---	1.07E+05	6.65E+01	1.07E+05
Cadmium	1.1E+03	1.20E+00	1.20E+00	1.20E+00	---	1.20E+00
Chromium	3.6E+04	8.10E+01	8.10E+01	8.10E+01	3.26E+01	8.10E+01
Chromium (VI)	1.4E+02	---	---	1.36E+02	---	1.36E+02
Cobalt	3.2E+04	---	---	3.20E+04	1.63E+01	3.20E+04
Copper	2.1E+04	3.40E+01	3.40E+01	3.40E+01	2.38E+01	3.40E+01
Iron	---	---	---	NV ⁸	---	NV
Lead	5.0E+02	4.67E+01	4.67E+01	4.67E+01	2.05E+01	4.67E+01
Lithium	1.1E+04	---	---	1.07E+04	6.51E+01	1.07E+04
Manganese	1.4E+04	---	---	1.40E+04	6.01E+02	1.40E+04
Mercury	3.4E+01	1.50E-01	1.50E-01	1.50E-01	5.76E-02	1.50E-01
Molybdenum	1.8E+03	---	---	1.84E+03	4.46E-01	1.84E+03
Nickel	1.4E+03	2.09E+01	2.09E+01	2.09E+01	3.95E+01	3.95E+01
Selenium	2.7E+03	---	---	2.66E+03	---	2.66E+03
Silver	3.5E+02	1.00E+00	1.00E+00	1.00E+00	---	1.00E+00
Strontium	1.5E+05	---	---	1.52E+05	1.26E+02	1.52E+05
Thallium	4.3E+01	---	---	4.3E+01	---	4.30E+01
Tin	9.2E+04	---	---	9.19E+04	---	9.19E+04
Titanium	1.0E+06	---	---	1.00E+06	6.36E+01	1.00E+06
Vanadium	3.3E+02	---	---	3.29E+02	4.79E+01	3.29E+02
Zinc	7.6E+04	1.50E+02	1.50E+02	1.50E+02	7.75E+01	1.50E+02
PESTICIDES						
4,4'-DDD	1.2E+02	1.22E-03	1.22E-03	1.22E-03	---	1.22E-03
4,4'-DDE	8.7E+01	2.07E-03	2.07E-03	2.07E-03	---	2.07E-03
4,4'-DDT	8.7E+01	1.19E-03	1.19E-03	1.19E-03	---	1.19E-03
Aldrin	8.4E-01	---	---	8.36E-01	---	8.36E-01
alpha-BHC	4.1E+00	---	---	4.05E+00	---	4.05E+00
alpha-Chlordane	4.1E+01	0.00226 ⁽⁷⁾	---	2.26E-03	---	2.26E-03
beta-BHC	1.4E+01	---	---	1.42E+01	---	1.42E+01
delta-BHC	1.4E+01	---	---	1.42E+01	---	1.42E+01
Dieldrin	8.9E-01	7.15E-04	7.15E-04	7.15E-04	---	7.15E-04
Endosulfan I	3.1E+02	---	2.90E-03	2.90E-03	---	2.90E-03

TABLE 12 - EXTENT EVALUATION COMPARISON VALUES - INTRACOASTAL WATERWAY SEDIMENTS⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 21 of RI/FS Work Plan ⁽²⁾			PSV	Potential Site-Specific Background Values ⁽⁶⁾	Extent Evaluation Comparison Value
	TotSed _{Comb} ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
Endosulfan II	9.2E+02	---	1.40E-02	1.40E-02	---	1.40E-02
Endosulfan sulfate	9.2E+02	---	---	9.19E+02	---	9.19E+02
Endrin	4.6E+01	---	3.50E-03	3.50E-03	---	3.50E-03
Endrin aldehyde	4.6E+01	---	---	4.59E+01	---	4.59E+01
Endrin ketone	4.6E+01	---	---	4.59E+01	---	4.59E+01
gamma-BHC (Lindane)	2.0E+01	3.20E-04	3.20E-04	3.20E-04	---	3.20E-04
gamma-Chlordane	4.1E+01	0.00226 ⁽⁷⁾	---	2.26E-03	---	2.26E-03
Heptachlor	3.2E+00	---	---	3.16E+00	---	3.16E+00
Heptachlor epoxide	1.6E+00	---	---	1.56E+00	---	1.56E+00
Methoxychlor	7.7E+02	---	1.90E-02	1.90E-02	---	1.90E-02
Toxaphene	1.3E+01	---	2.80E-02	2.80E-02	---	2.80E-02
PCBs	2.3E+00	2.27E-02		2.27E-02	---	2.27E-02
Aroclor-1016	---	---	---	NV	---	NV
Aroclor-1221	---	---	---	NV	---	NV
Aroclor-1232	---	---	---	NV	---	NV
Aroclor-1242	---	---	---	NV	---	NV
Aroclor-1248	---	---	---	NV	---	NV
Aroclor-1254	---	---	---	NV	---	NV
Aroclor-1260	---	---	---	NV	---	NV
VOCs						
1,1,1,2-Tetrachloroethane	2.1E+03	---	---	2.10E+03	---	2.10E+03
1,1,1-Trichloroethane	1.5E+05	2.63E+00	1.70E-01	1.70E-01	---	1.70E-01
1,1,2,2-Tetrachloroethane	2.7E+02	6.10E-01	9.40E-01	6.10E-01	---	6.10E-01
1,1,2-Trichloroethane	9.6E+02	3.00E-01	---	3.00E-01	---	3.00E-01
1,1-Dichloroethane	7.3E+04	---	---	7.35E+04	---	7.35E+04
1,1-Dichloroethene	3.7E+04	1.54E+01	---	1.54E+01	---	1.54E+01
1,1-Dichloropropene	5.4E+02	---	---	5.45E+02	---	5.45E+02
1,2,3-Trichloroproppane	7.8E+00	---	---	7.79E+00	---	7.79E+00
1,2,4-Trichlorobenzene	1.5E+03	3.90E-01	9.20E+00	3.90E-01	---	3.90E-01
1,2,4-Trimethylbenzene	3.7E+04	2.16E+00	---	2.16E+00	---	2.16E+00
1,2-Dibromo-3-chloropropane	1.0E+01	---	---	1.01E+01	---	1.01E+01
1,2-Dibromoethane	2.7E+01	---	---	2.72E+01	---	2.72E+01
1,2-Dichlorobenzene	6.6E+04	7.40E-01	3.40E-01	3.40E-01	---	3.40E-01
1,2-Dichloroethane	6.0E+02	4.30E+00	---	4.30E+00	---	4.30E+00
1,2-Dichloropropane	8.0E+02	2.82E+00	---	2.82E+00	---	2.82E+00
1,3,5-Trimethylbenzene	3.7E+04	---	---	3.67E+04	---	3.67E+04
1,3-Dichlorobenzene	2.2E+04	3.20E-01	1.70E+00	3.20E-01	---	3.20E-01
1,3-Dichloropropane	5.4E+02	4.00E-02	---	4.00E-02	---	4.00E-02

TABLE 12 - EXTENT EVALUATION COMPARISON VALUES - INTRACOASTAL WATERWAY SEDIMENTS⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 21 of RI/FS Work Plan ⁽²⁾			PSV	Potential Site-Specific Background Values ⁽⁶⁾	Extent Evaluation Comparison Value
	TotSed _{Comb} ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
1,4-Dichlorobenzene	2.3E+03	7.00E-01	3.50E-01	3.50E-01	---	3.50E-01
2,2-Dichloropropane	8.0E+02	---	---	8.01E+02	---	8.01E+02
2-Butanone	4.4E+05	---	---	4.41E+05	---	4.41E+05
2-Chloroethylvinyl ether	5.0E+01	---	---	4.95E+01	---	4.95E+01
2-Chlorotoluene	3.1E+03	---	---	3.06E+03	---	3.06E+03
2-Hexanone	4.4E+04	---	---	4.41E+04	---	4.41E+04
4-Chlorotoluene	1.5E+04	---	---	1.47E+04	---	1.47E+04
4-Isopropyltoluene	7.3E+04	---	---	7.35E+04	---	7.35E+04
4-Methyl-2-pentanone	5.9E+04	4.53E+01	---	4.53E+01	---	4.53E+01
Acetone	6.6E+05	1.67E+02	---	1.67E+02	---	1.67E+02
Acrolein	3.7E+02	---	---	3.67E+02	---	3.67E+02
Acrylonitrile	1.0E+02	1.70E-01	---	1.70E-01	---	1.70E-01
Benzene	9.9E+02	1.40E-01	5.70E-02	5.70E-02	---	5.70E-02
Bromobenzene	1.5E+04	---	---	1.47E+04	---	1.47E+04
Bromodichloromethane	8.8E+02	---	---	8.79E+02	---	8.79E+02
Bromoform	6.9E+03	1.78E+00	6.50E-01	6.50E-01	---	6.50E-01
Bromomethane	1.0E+03	---	---	1.03E+03	---	1.03E+03
Butanol	7.3E+04	---	---	7.35E+04	---	7.35E+04
Carbon disulfide	7.3E+04	---	---	7.35E+04	---	7.35E+04
Carbon tetrachloride	4.2E+02	3.67E+00	1.20E+00	1.20E+00	---	1.20E+00
Chlorobenzene	1.5E+04	2.90E-01	8.20E-01	2.90E-01	---	2.90E-01
Chloroethane	2.9E+05	---	---	2.94E+05	---	2.94E+05
Chloroform	7.3E+03	4.30E+00	---	4.30E+00	---	4.30E+00
Chloromethane	4.2E+03	8.74E+00	---	8.74E+00	---	8.74E+00
cis-1,2-Dichloroethene	7.3E+03	---	---	7.35E+03	---	7.35E+03
cis-1,3-Dichloropropene	7.3E+01	---	---	7.35E+01	---	7.35E+01
Cyclohexane	1.0E+06	---	---	1.0E+06	---	1.0E+06
Dibromochloromethane	6.5E+02	---	---	6.49E+02	---	6.49E+02
Dibromomethane	7.3E+03	---	---	7.27E+03	---	7.27E+03
Dichlorodifluoromethane	1.5E+05	---	---	1.47E+05	---	1.47E+05
Ethylbenzene	7.3E+04	6.50E-01	3.60E+00	6.50E-01	---	6.50E-01
Hexachlorobutadiene	3.1E+01	2.00E-02	---	2.00E-02	---	2.00E-02
Isopropylbenzene (Cumene)	7.3E+04	---	---	7.35E+04	---	7.35E+04
Methyl acetate	7.3E+05	---	---	7.35E+05	---	7.35E+05
Methyl iodide	1.0E+03	---	---	1.03E+03	---	1.03E+03
Methylcyclohexane	1.0E+06	---	---	1.00E+06	---	1.00E+06
Methylene chloride	7.3E+03	3.82E+00	---	3.82E+00	---	3.82E+00
Naphthalene	2.5E+03	1.60E-01	1.60E-01	1.60E-01	---	1.60E-01

TABLE 12 - EXTENT EVALUATION COMPARISON VALUES - INTRACOASTAL WATERWAY SEDIMENTS⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 21 of RI/FS Work Plan ⁽²⁾			PSV	Potential Site-Specific Background Values ⁽⁶⁾	Extent Evaluation Comparison Value
	TotSed _{Comb} ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
n-Butylbenzene	6.1E+03	---	---	6.12E+03	---	6.12E+03
n-Propylbenzene	2.9E+04	---	---	2.94E+04	---	2.94E+04
o-Xylene	1.0E+06	---	---	1.00E+06	---	1.00E+06
sec-Butylbenzene	2.9E+04	---	---	2.94E+04	---	2.94E+04
Styrene	1.5E+05	3.72E+00	---	3.72E+00	---	3.72E+00
tert-Butyl methyl ether (MTBE)	7.3E+03	---	---	7.35E+03	---	7.35E+03
tert-Butylbenzene	2.9E+04	---	---	2.94E+04	---	2.94E+04
Tetrachloroethene	1.0E+03	3.10E+00	5.30E-01	5.30E-01	---	5.30E-01
Toluene	5.9E+04	9.40E-01	6.70E-01	6.70E-01	---	6.70E-01
trans-1,2-Dichloroethene	1.5E+04	---	---	1.47E+04	---	1.47E+04
trans-1,3-Dichloropropene	5.4E+02	---	---	5.45E+02	---	5.45E+02
Trichloroethene	4.4E+03	1.47E+00	1.60E+00	1.47E+00	---	1.47E+00
Trichlorofluoromethane	2.2E+05	---	---	2.20E+05	---	2.20E+05
Trichlorotrifluoroethane	1.0E+06	---	---	1.00E+06	---	1.00E+06
Vinyl acetate	7.3E+05	---	---	7.35E+05	---	7.35E+05
Vinyl chloride	3.6E+01	---	---	3.63E+01	---	3.63E+01
Xylene (total)	1.5E+05	2.54E+00	---	2.54E+00	---	2.54E+00
SVOCs						
1,2Diphenylhydrazine/Azobenzen	1.3E+02	---	---	1.3E+02	---	1.30E+02
2,4,5-Trichlorophenol	1.5E+04	---	---	1.53E+04	---	1.53E+04
2,4,6-Trichlorophenol	1.3E+03	---	---	1.29E+03	---	1.29E+03
2,4-Dichlorophenol	4.6E+02	---	---	4.59E+02	---	4.59E+02
2,4-Dimethylphenol	3.1E+03	---	---	3.06E+03	---	3.06E+03
2,4-Dinitrophenol	3.1E+02	---	---	3.06E+02	---	3.06E+02
2,4-Dinitrotoluene	2.1E+01	---	---	2.09E+01	---	2.09E+01
2,6-Dinitrotoluene	2.1E+01	---	---	2.09E+01	---	2.09E+01
2-Chloronaphthalene	9.9E+03	---	---	9.90E+03	---	9.90E+03
2-Chlorophenol	3.7E+03	---	---	3.67E+03	---	3.67E+03
2-Methylnaphthalene	4.9E+02	7.00E-02	7.00E-02	7.00E-02	---	7.00E-02
2-Nitroaniline	4.6E+01	---	---	4.59E+01	---	4.59E+01
2-Nitrophenol	3.1E+02	---	---	3.06E+02	---	3.06E+02
3,3'-Dichlorobenzidine	3.2E+01	---	---	3.16E+01	---	3.16E+01
3-Nitroaniline	4.6E+01	---	---	4.59E+01	---	4.59E+01
4,6-Dinitro-2-methylphenol	3.1E+02	---	---	3.06E+02	---	3.06E+02
4-Bromophenyl phenyl ether	9.5E-01	---	1.30E+00	9.47E-01	---	9.47E-01
4-Chloro-3-methylphenol	7.7E+02	---	---	7.65E+02	---	7.65E+02
4-Chloroaniline	6.1E+02	---	---	6.12E+02	---	6.12E+02
4-Chlorophenyl phenyl ether	9.5E-01	---	---	9.47E-01	---	9.47E-01

TABLE 12 - EXTENT EVALUATION COMPARISON VALUES - INTRACOASTAL WATERWAY SEDIMENTS⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 21 of RI/FS Work Plan ⁽²⁾			PSV	Potential Site-Specific Background Values ⁽⁶⁾	Extent Evaluation Comparison Value
	TotSed _{Comb} ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
4-Nitroaniline	3.7E+02	---	---	3.74E+02	---	3.74E+02
4-Nitrophenol	3.1E+02	---	---	3.06E+02	---	3.06E+02
Acenaphthene	7.4E+03	1.60E-02	1.60E-02	1.60E-02	---	1.60E-02
Acenaphthylene	7.4E+03	4.40E-02	4.40E-02	4.40E-02	---	4.40E-02
Acetophenone	1.5E+04	---	---	1.53E+04	---	1.53E+04
Aniline	1.1E+03	---	---	1.07E+03	---	1.07E+03
Anthracene	3.7E+04	8.53E-02	8.53E-02	8.53E-02	---	8.53E-02
Atrazine (Aatrex)	6.4E+01	---	---	6.40E+01	---	6.40E+01
Benzaldehyde	7.3E+04	---	---	7.35E+04	---	7.35E+04
Benzidine	6.2E-02	---	---	6.18E-02	---	6.18E-02
Benzo(a)anthracene	1.6E+01	2.61E-01	2.61E-01	2.61E-01	---	2.61E-01
Benzo(a)pyrene	1.6E+00	4.30E-01	4.30E-01	4.30E-01	---	4.30E-01
Benzo(b)fluoranthene	1.6E+01	---	---	1.59E+01	---	1.59E+01
Benzo(g,h,i)perylene	3.7E+03	---	---	3.71E+03	---	3.71E+03
Benzo(k)fluoranthene	1.6E+02	---	---	1.59E+02	---	1.59E+02
Benzoic acid	6.1E+05	---	---	6.12E+05	---	6.12E+05
Benzyl alcohol	4.6E+04	---	---	4.59E+04	---	4.59E+04
Biphenyl	7.7E+03	---	1.10E+00	1.10E+00	---	1.10E+00
Bis(2-Chloroethoxy)methane	1.3E+01	---	---	1.29E+01	---	1.29E+01
Bis(2-Chloroethyl)ether	5.0E+01	---	---	4.95E+01	---	4.95E+01
Bis(2-Chloroisopropyl)ether	2.0E+02	---	---	2.03E+02	---	2.03E+02
Bis(2-Ethylhexyl)phthalate	2.4E+02	1.82E-01	1.82E-01	1.82E-01	---	1.82E-01
Butyl benzyl phthalate	3.1E+04	---	1.10E+01	1.10E+01	---	1.10E+01
Caprolactam	7.7E+04	---	---	7.65E+04	---	7.65E+04
Carbazole	7.1E+02	---	---	7.10E+02	---	7.10E+02
Chrysene	1.6E+03	3.84E-01	3.84E-01	3.84E-01	---	3.84E-01
Dibenz(a,h)anthracene	1.6E+00	6.34E-02	6.34E-02	6.34E-02	---	6.34E-02
Dibenzofuran	6.1E+02	---	2.00E+00	2.00E+00	---	2.00E+00
Diethyl phthalate	1.2E+05	---	6.30E-01	6.30E-01	---	6.30E-01
Dimethyl phthalate	1.2E+05	---	---	1.22E+05	---	1.22E+05
Di-n-butyl phthalate	1.5E+04	---	1.10E+01	1.10E+01	---	1.10E+01
Di-n-octyl phthalate	3.1E+03	---	---	3.06E+03	---	3.06E+03
Fluoranthene	4.9E+03	6.00E-01	6.00E-01	6.00E-01	---	6.00E-01
Fluorene	4.9E+03	1.90E-02	1.90E-02	1.90E-02	---	1.90E-02
Hexachlorobenzene	8.9E+00	---	---	8.88E+00	---	8.88E+00
Hexachlorocyclopentadiene	9.2E+02	---	---	9.19E+02	---	9.19E+02
Hexachloroethane	1.5E+02	---	1.00E+00	1.00E+00	---	1.00E+00
Indeno(1,2,3-cd)pyrene	1.6E+01	---	---	1.59E+01	---	1.59E+01

TABLE 12 - EXTENT EVALUATION COMPARISON VALUES - INTRACOASTAL WATERWAY SEDIMENTS⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 21 of RI/FS Work Plan ⁽²⁾			PSV	Potential Site-Specific Background Values ⁽⁶⁾	Extent Evaluation Comparison Value
	TotSed _{Comb} ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
Isophorone	1.5E+04	---	---	1.50E+04	---	1.50E+04
Nitrobenzene	7.7E+01	---	---	7.65E+01	---	7.65E+01
n-Nitrosodimethylamine	1.1E+00	---	---	1.07E+00	---	1.07E+00
n-Nitrosodi-n-propylamine	6.3E-01	---	---	6.31E-01	---	6.31E-01
n-Nitrosodiphenylamine	9.0E+02	---	---	9.01E+02	---	9.01E+02
o-Cresol	7.7E+03	---	---	7.65E+03	---	7.65E+03
Pentachlorophenol	5.6E+01	---	---	5.61E+01	---	5.61E+01
Phenanthrene	3.7E+03	2.40E-01	2.40E-01	2.40E-01	---	2.40E-01
Phenol	4.6E+04	---	---	4.59E+04	---	4.59E+04
Pyrene	3.7E+03	6.65E-01	6.65E-01	6.65E-01	---	6.65E-01
Pyridine	7.3E+02	---	---	7.35E+02	---	7.35E+02
Chloride	---	---	---	NV	NV	NV
Sulfate	---	---	---	NV	NV	NV
Total Moisture	---	---	---	NV	NV	NV
Total Organic Carbon	---	---	---	NV	NV	NV

Notes

1. All values in mg/kg.
2. Values from Table 21 of RI/FS Work Plan (updated to reflect changes since 2005 where applicable)
3. TotSed_{Comb} PCL = TCEQ Protective Concentration Level for total sediment combined pathway (includes inhalation; ingestion; dermal pathways).
4. From Table 3-3 of TCEQ "Guidance for Conducting Ecological Risk Assessments at Remediation Sites in Texas".
5. From Table 2 of EPA "Ecotox Thresholds" ECO Update January 1996.
6. 95% UTL calculated from site-specific background samples.
7. Value listed is for total Chlordane.
8. NV = No Preliminary Screening Value.

**TABLE 13 - DETECTED INTRACOASTAL WATERWAY RI SEDIMENT SAMPLE CONCENTRATIONS
EXCEEDING EXTENT EVALUATION COMPARISON VALUES**

Sample Location	Date	Chemical of Interest	Concentration (mg/kg)	Extent Evaluation Comparison Value⁽¹⁾ (mg/kg)
IWSE01	6/26/2006	4,4'-DDT	0.00332J ⁽²⁾	0.00119
		Acenaphthene	0.0631J	0.016
		Benzo(a)anthracene	0.395	0.261
		Benzo(a)pyrene	0.445	0.43
		Chrysene	0.475J	0.384
IWSE03	6/26/2006	Dibenz(a,h)anthracene	0.151	0.0634
		Fluoranthene	0.804J-	0.6
		Fluorene	0.046J	0.019
		Phenanthrene	0.508	0.24
		Pyrene	0.862	0.665
IWSE04	6/26/2006	Dibenz(a,h)anthracene	0.0694J	0.0634
IWSE05	6/26/2006	Fluorene	0.0241J	0.019
		Acenaphthene	0.0239J	0.016
IWSE07	6/26/2006	Dibenz(a,h)anthracene	0.235	0.0634
		Fluorene	0.0277J	0.019

Notes:

(1) Extent Evaluation Comparison Values from Table 12 of RI Report.

(2) Data qualifiers: J = estimated value. J- = estimated value, biased low.

TABLE 14 - SURFACE WATER EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 20 of RI/FS Work Plan ⁽²⁾		Extent Evaluation Comparison Value
	Human Health Surface Water Risk-Based Exposure Limits (^{SW} RBELs) Saltwater Fish Only ⁽³⁾	TCEQ Ecological Benchmark for Water ⁽⁴⁾	
METALS⁽⁵⁾			
Aluminum	---	---	NV
Antimony	6.40E-01	---	6.40E-01
Arsenic	1.40E-03	---	1.40E-03
Dissolved Arsenic		7.80E-02	7.80E-02
Barium	---	2.50E+01	2.50E+01
Beryllium	---	---	NV
Boron	---	---	NV
Dissolved Cadmium	---	1.00E-02	1.00E-02
Dissolved Chromium	2.22E+00	1.03E-01	1.03E-01
Dissolved Chromium (VI)	---	4.96E-02	4.96E-02
Cobalt	---	---	NV
Dissolved Copper	---	3.60E-03	3.60E-03
Ferric Iron	---	---	NV
Iron	---	---	NV
Dissolved Lead	1.69E-02	5.30E-03	5.30E-03
Lithium	---	---	NV
Manganese	1.00E-01	---	1.00E-01
Mercury	2.50E-05	1.10E-03	2.50E-05
Molybdenum	---	---	NV
Nickel	4.60E+00	---	4.60E+00
Dissolved Nickel		1.31E-02	1.31E-02
Selenium	4.20E+00	1.36E-01	1.36E-01
Dissolved Silver	---	1.90E-04	1.90E-04
Strontium	---	---	NV
Thallium	4.70E-04	2.13E-02	4.70E-04

TABLE 14 - SURFACE WATER EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 20 of RI/FS Work Plan ⁽²⁾		Extent Evaluation Comparison Value
	Human Health Surface Water Risk-Based Exposure Limits (^{SW} RBELs) Saltwater Fish Only ⁽³⁾	TCEQ Ecological Benchmark for Water ⁽⁴⁾	
Tin	---	---	NV
Titanium	---	---	NV
Vanadium	---	---	NV
Zinc	2.60E+01	---	2.60E+01
Dissolved Zinc	---	8.42E-02	8.42E-02
PESTICIDES			NV
4,4'-DDD	7.00E-06	2.50E-05	7.00E-06
4,4'-DDE	5.00E-06	1.40E-04	5.00E-06
4,4'-DDT	5.00E-06	1.00E-06	1.00E-06
Aldrin	2.80E-06	1.30E-04	2.80E-06
alpha-BHC	---	2.50E-02	2.50E-02
alpha-Chlordane	2.13E-05	---	2.13E-05
beta-BHC	---	---	NV
delta-BHC	---	---	NV
Dieldrin	---	2.00E-06	2.00E-06
Endosulfan I	8.90E-02	9.00E-06	9.00E-06
Endosulfan II	8.90E-02	9.00E-06	9.00E-06
Endosulfan sulfate	8.90E-02	9.00E-06	9.00E-06
Endrin	8.93E-04	2.00E-06	2.00E-06
Endrin aldehyde	3.00E-04	---	3.00E-04
Endrin ketone	---	---	NV
gamma-BHC (Lindane)	---	1.60E-05	1.60E-05
gamma-Chlordane	---	---	NV
Heptachlor	1.77E-06	4.00E-06	1.77E-06
Heptachlor epoxide	7.23E-04	3.60E-06	3.60E-06
Methoxychlor	1.48E-03	3.00E-05	3.00E-05

TABLE 14 - SURFACE WATER EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 20 of RI/FS Work Plan ⁽²⁾		Extent Evaluation Comparison Value
	Human Health Surface Water Risk-Based Exposure Limits (^{SW} RBELs) Saltwater Fish Only ⁽³⁾	TCEQ Ecological Benchmark for Water ⁽⁴⁾	
Toxaphene	9.00E-06	2.00E-07	2.00E-07
PCBs	8.85E-07	3.00E-05	8.85E-07
Aroclor-1016	---	---	NV
Aroclor-1221	---	---	NV
Aroclor-1232	---	---	NV
Aroclor-1242	---	---	NV
Aroclor-1248	---	---	NV
Aroclor-1254	---	---	NV
Aroclor-1260	---	---	NV
VOCs			
1,1,1,2-Tetrachloroethane	---	---	NV
1,1,1-Trichloroethane	---	1.56E+00	1.56E+00
1,1,2,2-Tetrachloroethane	4.00E-02	4.51E-01	4.00E-02
1,1,2-Trichloroethane	---	2.75E-01	2.75E-01
1,1-Dichloroethane	---	---	NV
1,1-Dichloroethene	---	1.25E+01	1.25E+01
1,1-Dichloropropene	---	---	NV
1,2,3-Trichloropropane	---	---	NV
1,2,4-Trichlorobenzene	7.00E-02	2.20E-02	2.20E-02
1,2,4-Trimethylbenzene	---	2.17E-01	2.17E-01
1,2-Dibromo-3-chloropropane	---	---	NV
1,2-Dibromoethane	2.23E-04	---	2.23E-04
1,2-Dichlorobenzene	1.30E+00	9.90E-02	9.90E-02
1,2-Dichloroethane	4.93E-02	5.65E+00	4.93E-02
1,2-Dichloroethene(Total)	---	6.80E-01	6.80E-01
1,2-Dichloropropene	1.50E-01	2.40E+00	1.50E-01

TABLE 14 - SURFACE WATER EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 20 of RI/FS Work Plan ⁽²⁾		Extent Evaluation Comparison Value
	Human Health Surface Water Risk-Based Exposure Limits (^{SW} RBELs) Saltwater Fish Only ⁽³⁾	TCEQ Ecological Benchmark for Water ⁽⁴⁾	
1,3,5-Trimethylbenzene	---	---	NV
1,3-Dichlorobenzene	9.60E-01	1.42E-01	1.42E-01
1,3-Dichloropropane	1.50E-01	---	1.50E-01
1,4-Dichlorobenzene	1.90E-01	9.90E-02	9.90E-02
2,2-Dichloropropane	---	---	NV
2-Butanone	---	---	NV
2-Chloroethylvinyl ether	---	---	NV
2-Chlorotoluene	---	---	NV
2-Hexanone	---	---	NV
4-Chlorotoluene	---	---	NV
4-Isopropyltoluene	---	---	NV
4-Methyl-2-pentanone	---	6.15E+01	6.15E+01
Acetone	---	2.82E+02	2.82E+02
Acrolein	2.90E-01	5.00E-03	5.00E-03
Acrylonitrile	7.30E-03	2.91E-01	7.30E-03
Benzene	7.08E-02	1.09E-01	7.08E-02
Bromobenzene	---	---	NV
Bromodichloromethane	---	---	NV
Bromoform	1.40E+00	1.22E+00	1.22E+00
Bromomethane	---	6.00E-01	6.00E-01
Butanol	---	---	NV
Carbon disulfide	---	---	NV
Carbon tetrachloride	5.60E-03	1.50E+00	5.60E-03
Chlorobenzene	9.20E-01	1.05E-01	1.05E-01
Chloroethane	---	---	NV
Chloroform	8.61E-01	4.10E+00	8.61E-01

TABLE 14 - SURFACE WATER EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 20 of RI/FS Work Plan ⁽²⁾		Extent Evaluation Comparison Value
	Human Health Surface Water Risk-Based Exposure Limits (^{SW} RBELs) Saltwater Fish Only ⁽³⁾	TCEQ Ecological Benchmark for Water ⁽⁴⁾	
Chloromethane	---	1.35E+01	1.35E+01
cis-1,2-Dichloroethene	---	6.80E-01	6.80E-01
cis-1,3-Dichloropropene	1.07E-01	---	1.07E-01
Cyclohexane	---	---	NV
Dibromochloromethane	4.77E-02	---	4.77E-02
Dibromomethane	---	---	NV
Dichlorodifluoromethane	---	---	NV
Ethylbenzene	2.10E+00	2.49E-01	2.49E-01
Hexachlorobutadiene	2.40E-03	3.20E-04	3.20E-04
Isopropylbenzene (Cumene)	---	---	NV
m,p-Xylene	---	---	NV
Methyl acetate	---	---	NV
Methyl iodide	---	---	NV
Methylcyclohexane	---	---	NV
Methylene chloride	5.90E+00	5.42E+00	5.42E+00
Naphthalene	---	1.25E-01	1.25E-01
n-Butylbenzene	---	---	NV
n-Propylbenzene	---	---	NV
o-Xylene	---	---	NV
sec-Butylbenzene	---	---	NV
Styrene	---	4.55E-01	4.55E-01
tert-Butyl methyl ether (MTBE)	---	---	NV
tert-Butylbenzene	---	---	NV
Tetrachloroethene	---	1.45E+00	1.45E+00
Toluene	1.50E+01	4.80E-01	4.80E-01
trans-1,2-Dichloroethene	---	6.80E-01	6.80E-01

TABLE 14 - SURFACE WATER EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 20 of RI/FS Work Plan ⁽²⁾		Extent Evaluation Comparison Value
	Human Health Surface Water Risk-Based Exposure Limits (^{SW} RBELs) Saltwater Fish Only ⁽³⁾	TCEQ Ecological Benchmark for Water ⁽⁴⁾	
trans-1,3-Dichloropropene	1.07E-01	---	1.07E-01
trans-1,4-Dichloro-2-butene	---	---	NV
Trichloroethene	---	9.70E-01	9.70E-01
Trichlorofluoromethane	---	---	NV
Trichlorotrifluoroethane	---	---	NV
Vinyl acetate	---	---	NV
Vinyl chloride	2.77E-01	---	2.77E-01
Xylene (total)	---	8.50E-01	8.50E-01
SVOCs			
1,2Diphenylhydrazine/Azobenzen	2.00E-03	---	2.00E-03
2,4,5-Trichlorophenol	7.12E-01	1.20E-02	1.20E-02
2,4,6-Trichlorophenol	2.40E-02	6.10E-02	2.40E-02
2,4-Dichlorophenol	2.90E-01	---	2.90E-01
2,4-Dimethylphenol	8.50E-01	---	8.50E-01
2,4-Dinitrophenol	5.30E+00	6.70E-01	6.70E-01
2,4-Dinitrotoluene	3.40E-02	---	3.40E-02
2,6-Dinitrotoluene	---	---	NV
2-Chloronaphthalene	1.60E+00	---	1.60E+00
2-Chlorophenol	1.50E-01	2.65E-01	1.50E-01
2-Methylnaphthalene	---	3.00E-02	3.00E-02
2-Nitroaniline	---	---	NV
2-Nitrophenol	---	1.47E+00	1.47E+00
3,3'-Dichlorobenzidine	2.80E-04	3.70E-02	2.80E-04
3-Nitroaniline	---	---	NV
4,6-Dinitro-2-methylphenol	---	---	NV
4-Bromophenyl phenyl ether	---	---	NV

TABLE 14 - SURFACE WATER EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 20 of RI/FS Work Plan ⁽²⁾		Extent Evaluation Comparison Value
	Human Health Surface Water Risk-Based Exposure Limits (^{SW} RBELs) Saltwater Fish Only ⁽³⁾	TCEQ Ecological Benchmark for Water ⁽⁴⁾	
4-Chloro-3-methylphenol	---	---	NV
4-Chloroaniline	---	---	NV
4-Chlorophenyl phenyl ether	---	---	NV
4-Nitroaniline	---	---	NV
4-Nitrophenol	---	3.59E-01	3.59E-01
Acenaphthene	9.90E-01	4.04E-02	4.04E-02
Acenaphthylene	---	---	NV
Acetophenone	---	---	NV
Aniline	---	---	NV
Anthracene	4.00E+01	1.80E-04	1.80E-04
Atrazine (Aatrex)	---	---	NV
Benzaldehyde	---	---	NV
Benzidine	---	---	NV
Benzo(a)anthracene	---	---	NV
Benzo(a)pyrene	---	---	NV
Benzo(b)fluoranthene	---	---	NV
Benzo(g,h,i)perylene	---	---	NV
Benzo(k)fluoranthene	---	---	NV
Benzoic acid	---	---	NV
Benzyl alcohol	---	---	NV
Biphenyl	---	---	NV
Bis(2-Chloroethoxy)methane	---	---	NV
Bis(2-Chloroethyl)ether	---	---	NV
Bis(2-Chloroisopropyl)ether	---	---	NV
Bis(2-Ethylhexyl)phthalate	---	---	NV
Butyl benzyl phthalate	1.90E+00	1.47E-01	1.47E-01

TABLE 14 - SURFACE WATER EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 20 of RI/FS Work Plan ⁽²⁾		Extent Evaluation Comparison Value
	Human Health Surface Water Risk-Based Exposure Limits (^{SW} RBELs) Saltwater Fish Only ⁽³⁾	TCEQ Ecological Benchmark for Water ⁽⁴⁾	
Caprolactam	---	---	NV
Carbazole	---	---	NV
Chrysene	---	---	NV
Dibenz(a,h)anthracene	---	---	NV
Dibenzofuran	---	6.50E-02	6.50E-02
Diethyl phthalate	4.40E+01	4.42E-01	4.42E-01
Dimethyl phthalate	1.10E+03	5.80E-01	5.80E-01
Di-n-butyl phthalate	4.50E+00	5.00E-03	5.00E-03
Di-n-octyl phthalate	---	---	NV
Fluoranthene	1.40E-01	2.96E-03	2.96E-03
Fluorene	5.30E+00	5.00E-02	5.00E-02
Hexachlorobenzene	---	---	NV
Hexachlorocyclopentadiene	1.10E+00	7.00E-05	7.00E-05
Hexachloroethane	1.85E-01	9.40E-03	9.40E-03
Indeno(1,2,3-cd)pyrene	---	---	NV
Isophorone	9.60E+00	6.50E-01	6.50E-01
m,p-Cresol	---	---	NV
Nitrobenzene	1.56E-01	6.68E-02	6.68E-02
n-Nitrosodimethylamine	3.00E-02	1.65E+02	3.00E-02
n-Nitrosodi-n-propylamine	5.10E-03	1.20E-01	5.10E-03
n-Nitrosodiphenylamine	6.00E-02	1.65E+02	6.00E-02
o-Cresol	8.74E+00	5.10E-01	5.10E-01
Pentachlorophenol	9.00E-02	9.60E-03	9.60E-03
Phenanthrene	---	4.60E-03	4.60E-03
Phenol	1.70E+03	2.75E+00	2.75E+00
Pyrene	4.00E+00	2.40E-04	2.40E-04

TABLE 14 - SURFACE WATER EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 20 of RI/FS Work Plan ⁽²⁾		Extent Evaluation Comparison Value
	Human Health Surface Water Risk-Based Exposure Limits (^{SW} RBELs) Saltwater Fish Only ⁽³⁾	TCEQ Ecological Benchmark for Water ⁽⁴⁾	
Pyridine	8.89E+00	---	8.89E+00
Chloride	---	---	NV
Sulfate	---	---	NV
Total Dissolved Solids(TDS)	---	---	NV
Total Suspended Solids	---	---	NV
Total Organic Carbon	---	---	NV
Hardness	---	---	NV

Notes:

1. All values in mg/L.
2. Values from Table 20 of RI/FS Work Plan (updated to reflect changes since 2005 where applicable).
3. From TCEQ Aquatic Life Surface Water RBEL Table and Human Health Surface Water RBEL Table updated October 2005, available at <http://www.tceq.state.tx.us/assets/public/remediation/trpp/swrbelstable.pdf>
4. From Table 3-2 of TCEQ "Guidance for Conducting Ecological Risk Assessments at Remediation Sites in Texas."
5. Metals values are for total concentrations unless indicated otherwise.
6. NV = No Preliminary Screening Value.

TABLE 15 - WETLAND AND POND SEDIMENT EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 21 of RI/FS Work Plan ⁽²⁾			PSV	Potential Site-Specific Background Values ⁽⁶⁾	Extent Evaluation Comparison Value
	Tot Sed _{Comb} ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
METALS						
Aluminum	1.5E+05	---	---	1.5E+05	---	1.5E+05
Antimony	8.3E+01	---	---	8.3E+01	---	8.3E+01
Arsenic	1.1E+02	8.2E+00	8.2E+00	8.2E+00	8.7E+00	8.7E+00
Barium	2.3E+04	---	---	2.3E+04	4.6E+02	2.3E+04
Beryllium	2.7E+01	---	---	2.7E+01	---	2.7E+01
Boron	1.1E+05	---	---	1.1E+05	---	1.1E+05
Cadmium	1.1E+03	1.2E+00	1.2E+00	1.2E+00	---	1.2E+00
Chromium	3.6E+04	8.1E+01	8.1E+01	8.1E+01	2.4E+01	8.1E+01
Chromium (VI)	1.4E+02	---	---	1.4E+02	---	1.4E+02
Cobalt	3.2E+04	---	---	3.2E+04	---	3.2E+04
Copper	2.1E+04	3.4E+01	3.4E+01	3.4E+01	2.4E+01	3.4E+01
Iron	---	---	---	NV	---	NV
Lead	5.0E+02	4.7E+01	4.7E+01	4.7E+01	1.8E+01	4.7E+01
Lithium	1.1E+04	---	---	1.1E+04	3.6E+01	1.1E+04
Manganese	1.4E+04	---	---	1.4E+04	6.5E+02	1.4E+04
Mercury	3.4E+01	1.5E-01	1.5E-01	1.5E-01	3.5E-02	1.5E-01
Molybdenum	1.8E+03	---	---	1.8E+03	7.4E-01	1.8E+03
Nickel	1.4E+03	2.1E+01	2.1E+01	2.1E+01	---	2.1E+01
Selenium	2.7E+03	---	---	2.7E+03	---	2.7E+03
Silver	3.5E+02	1.0E+00	1.0E+00	1.0E+00	---	1.0E+00
Strontium	1.5E+05	---	---	1.5E+05	---	1.5E+05
Thallium	4.3E+01	---	---	4.3E+01	---	4.3E+01
Tin	9.2E+04	---	---	9.2E+04	---	9.2E+04
Titanium	1.0E+06	---	---	1.0E+06	---	1.0E+06
Vanadium	3.3E+02	---	---	3.3E+02	---	3.3E+02
Zinc	7.6E+04	1.5E+02	1.5E+02	1.5E+02	2.8E+02	2.8E+02
PESTICIDES						
4,4'-DDD	1.2E+02	1.2E-03	1.2E-03	1.2E-03	---	1.2E-03
4,4'-DDE	8.7E+01	2.1E-03	2.1E-03	2.1E-03	---	2.1E-03
4,4'-DDT	8.7E+01	1.2E-03	1.2E-03	1.2E-03	---	1.2E-03

TABLE 15 - WETLAND AND POND SEDIMENT EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 21 of RI/FS Work Plan ⁽²⁾			PSV	Potential Site-Specific Background Values ⁽⁶⁾	Extent Evaluation Comparison Value
	Tot Sed _{Comb} ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
Aldrin	8.4E-01	---	---	8.4E-01	---	8.4E-01
alpha-BHC	4.1E+00	---	---	4.1E+00	---	4.1E+00
alpha-Chlordane	4.1E+01	2.3-03 ⁽⁷⁾	---	2.3E-03	---	2.3E-03
beta-BHC	1.4E+01	---	---	1.4E+01	---	1.4E+01
delta-BHC	1.4E+01	---	---	1.4E+01	---	1.4E+01
Dieldrin	8.9E-01	7.2E-04	7.2E-04	7.2E-04	---	7.2E-04
Endosulfan I	3.1E+02	---	2.9E-03	2.9E-03	---	2.9E-03
Endosulfan II	9.2E+02	---	1.4E-02	1.4E-02	---	1.4E-02
Endosulfan sulfate	9.2E+02	---	---	9.2E+02	---	9.2E+02
Endrin	4.6E+01	---	3.5E-03	3.5E-03	---	3.5E-03
Endrin aldehyde	4.6E+01	---	---	4.6E+01	---	4.6E+01
Endrin ketone	4.6E+01	---	---	4.6E+01	---	4.6E+01
gamma-BHC (Lindane)	2.0E+01	3.2E-04	3.2E-04	3.2E-04	---	3.2E-04
gamma-Chlordane	4.1E+01	2.3-03 ⁽⁷⁾	---	2.3E-03	---	2.3E-03
Heptachlor	3.2E+00	---	---	3.2E+00	---	3.2E+00
Heptachlor epoxide	1.6E+00	---	---	1.6E+00	---	1.6E+00
Methoxychlor	7.7E+02	---	1.9E-02	1.9E-02	---	1.9E-02
Toxaphene	1.3E+01	---	2.8E-02	2.8E-02	---	2.8E-02
PCBs	2.3E+00	2.3E-02		2.3E-02	---	2.3E-02
Aroclor-1016	---	---	---	0.0E+00	---	0.0E+00
Aroclor-1221	---	---	---	0.0E+00	---	0.0E+00
Aroclor-1232	---	---	---	0.0E+00	---	0.0E+00
Aroclor-1242	---	---	---	0.0E+00	---	0.0E+00
Aroclor-1248	---	---	---	0.0E+00	---	0.0E+00
Aroclor-1254	---	---	---	0.0E+00	---	0.0E+00
Aroclor-1260	---	---	---	0.0E+00	---	0.0E+00
VOCs						
1,1,1,2-Tetrachloroethane	2.1E+03	---	---	2.1E+03	---	2.1E+03
1,1,1-Trichloroethane	1.5E+05	2.6E+00	1.7E-01	1.7E-01	---	1.7E-01
1,1,2,2-Tetrachloroethane	2.7E+02	6.1E-01	9.4E-01	6.1E-01	---	6.1E-01
1,1,2-Trichloroethane	9.6E+02	3.0E-01	---	3.0E-01	---	3.0E-01

TABLE 15 - WETLAND AND POND SEDIMENT EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 21 of RI/FS Work Plan ⁽²⁾			PSV	Potential Site-Specific Background Values ⁽⁶⁾	Extent Evaluation Comparison Value
	Tot Sed _{Comb} ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
1,1-Dichloroethane	7.3E+04	---	---	7.3E+04	---	7.3E+04
1,1-Dichloroethene	3.7E+04	1.5E+01	---	1.5E+01	---	1.5E+01
1,1-Dichloropropene	5.4E+02	---	---	5.4E+02	---	5.4E+02
1,2,3-Trichloropropane	7.8E+00	---	---	7.8E+00	---	7.8E+00
1,2,4-Trichlorobenzene	1.5E+03	3.9E-01	9.2E+00	3.9E-01	---	3.9E-01
1,2,4-Trimethylbenzene	3.7E+04	2.2E+00	---	2.2E+00	---	2.2E+00
1,2-Dibromo-3-chloropropane	1.0E+01	---	---	1.0E+01	---	1.0E+01
1,2-Dibromoethane	2.7E+01	---	---	2.7E+01	---	2.7E+01
1,2-Dichlorobenzene	6.6E+04	7.4E-01	3.4E-01	3.4E-01	---	3.4E-01
1,2-Dichloroethane	6.0E+02	4.3E+00	---	4.3E+00	---	4.3E+00
1,2-Dichloropropane	8.0E+02	2.8E+00	---	2.8E+00	---	2.8E+00
1,3,5-Trimethylbenzene	3.7E+04	---	---	3.7E+04	---	3.7E+04
1,3-Dichlorobenzene	2.2E+04	3.2E-01	1.7E+00	3.2E-01	---	3.2E-01
1,3-Dichloropropane	5.4E+02	4.0E-02	---	4.0E-02	---	4.0E-02
1,4-Dichlorobenzene	2.3E+03	7.0E-01	3.5E-01	3.5E-01	---	3.5E-01
2,2-Dichloropropane	8.0E+02	---	---	8.0E+02	---	8.0E+02
2-Butanone	4.4E+05	---	---	4.4E+05	---	4.4E+05
2-Chloroethylvinyl ether	5.0E+01	---	---	5.0E+01	---	5.0E+01
2-Chlorotoluene	3.1E+03	---	---	3.1E+03	---	3.1E+03
2-Hexanone	4.4E+04	---	---	4.4E+04	---	4.4E+04
4-Chlorotoluene	1.5E+04	---	---	1.5E+04	---	1.5E+04
4-Isopropyltoluene	7.3E+04	---	---	7.3E+04	---	7.3E+04
4-Methyl-2-pentanone	5.9E+04	4.5E+01	---	4.5E+01	---	4.5E+01
Acetone	6.6E+05	1.7E+02	---	1.7E+02	---	1.7E+02
Acrolein	3.7E+02	---	---	3.7E+02	---	3.7E+02
Acrylonitrile	1.0E+02	1.7E-01	---	1.7E-01	---	1.7E-01
Benzene	9.9E+02	1.4E-01	5.7E-02	5.7E-02	---	5.7E-02
Bromobenzene	1.5E+04	---	---	1.5E+04	---	1.5E+04
Bromodichloromethane	8.8E+02	---	---	8.8E+02	---	8.8E+02
Bromoform	6.9E+03	1.8E+00	6.5E-01	6.5E-01	---	6.5E-01
Bromomethane	1.0E+03	---	---	1.0E+03	---	1.0E+03

TABLE 15 - WETLAND AND POND SEDIMENT EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 21 of RI/FS Work Plan ⁽²⁾			PSV	Potential Site-Specific Background Values ⁽⁶⁾	Extent Evaluation Comparison Value
	Tot Sed _{Comb} ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
Butanol	7.3E+04	---	---	7.3E+04	---	7.3E+04
Carbon disulfide	7.3E+04	---	---	7.3E+04	---	7.3E+04
Carbon tetrachloride	4.2E+02	3.7E+00	1.2E+00	1.2E+00	---	1.2E+00
Chlorobenzene	1.5E+04	2.9E-01	8.2E-01	2.9E-01	---	2.9E-01
Chloroethane	2.9E+05	---	---	2.9E+05	---	2.9E+05
Chloroform	7.3E+03	4.3E+00	---	4.3E+00	---	4.3E+00
Chloromethane	4.2E+03	8.7E+00	---	8.7E+00	---	8.7E+00
cis-1,2-Dichloroethene	7.3E+03	---	---	7.3E+03	---	7.3E+03
cis-1,3-Dichloropropene	7.3E+01	---	---	7.3E+01	---	7.3E+01
Cyclohexane	1.0E+06	---	---	1.0E+06	---	1.0E+06
Dibromochloromethane	6.5E+02	---	---	6.5E+02	---	6.5E+02
Dibromomethane	7.3E+03	---	---	7.3E+03	---	7.3E+03
Dichlorodifluoromethane	1.5E+05	---	---	1.5E+05	---	1.5E+05
Ethylbenzene	7.3E+04	6.5E-01	3.6E+00	6.5E-01	---	6.5E-01
Hexachlorobutadiene	3.1E+01	2.0E-02	---	2.0E-02	---	2.0E-02
Isopropylbenzene (Cumene)	7.3E+04	---	---	7.3E+04	---	7.3E+04
Methyl acetate	7.3E+05	---	---	7.3E+05	---	7.3E+05
Methyl iodide	1.0E+03	---	---	1.0E+03	---	1.0E+03
Methylcyclohexane	1.0E+06	---	---	1.0E+06	---	1.0E+06
Methylene chloride	7.3E+03	3.8E+00	---	3.8E+00	---	3.8E+00
Naphthalene	2.5E+03	1.6E-01	1.6E-01	1.6E-01	---	1.6E-01
n-Butylbenzene	6.1E+03	---	---	6.1E+03	---	6.1E+03
n-Propylbenzene	2.9E+04	---	---	2.9E+04	---	2.9E+04
o-Xylene	1.0E+06	---	---	1.0E+06	---	1.0E+06
sec-Butylbenzene	2.9E+04	---	---	2.9E+04	---	2.9E+04
Styrene	1.5E+05	3.7E+00	---	3.7E+00	---	3.7E+00
tert-Butyl methyl ether (MTBE)	7.3E+03	---	---	7.3E+03	---	7.3E+03
tert-Butylbenzene	2.9E+04	---	---	2.9E+04	---	2.9E+04
Tetrachloroethene	1.0E+03	3.1E+00	5.3E-01	5.3E-01	---	5.3E-01
Toluene	5.9E+04	9.4E-01	6.7E-01	6.7E-01	---	6.7E-01
trans-1,2-Dichloroethene	1.5E+04	---	---	1.5E+04	---	1.5E+04

TABLE 15 - WETLAND AND POND SEDIMENT EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 21 of RI/FS Work Plan ⁽²⁾			PSV	Potential Site-Specific Background Values ⁽⁶⁾	Extent Evaluation Comparison Value
	Tot Sed _{Comb} ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
trans-1,3-Dichloropropene	5.4E+02	---	---	5.4E+02	---	5.4E+02
Trichloroethene	4.4E+03	1.5E+00	1.6E+00	1.5E+00	---	1.5E+00
Trichlorofluoromethane	2.2E+05	---	---	2.2E+05	---	2.2E+05
Trichlorotrifluoroethane	1.0E+06	---	---	1.0E+06	---	1.0E+06
Vinyl acetate	7.3E+05	---	---	7.3E+05	---	7.3E+05
Vinyl chloride	3.6E+01	---	---	3.6E+01	---	3.6E+01
Xylene (total)	1.5E+05	2.5E+00	---	2.5E+00	---	2.5E+00
SVOCs						
1,2Diphenylhydrazine/Azobenzen	1.3E+02	---	---	1.3E+02	---	1.3E+02
2,4,5-Trichlorophenol	1.5E+04	---	---	1.5E+04	---	1.5E+04
2,4,6-Trichlorophenol	1.3E+03	---	---	1.3E+03	---	1.3E+03
2,4-Dichlorophenol	4.6E+02	---	---	4.6E+02	---	4.6E+02
2,4-Dimethylphenol	3.1E+03	---	---	3.1E+03	---	3.1E+03
2,4-Dinitrophenol	3.1E+02	---	---	3.1E+02	---	3.1E+02
2,4-Dinitrotoluene	2.1E+01	---	---	2.1E+01	---	2.1E+01
2,6-Dinitrotoluene	2.1E+01	---	---	2.1E+01	---	2.1E+01
2-Chloronaphthalene	9.9E+03	---	---	9.9E+03	---	9.9E+03
2-Chlorophenol	3.7E+03	---	---	3.7E+03	---	3.7E+03
2-Methylnaphthalene	4.9E+02	7.0E-02	7.0E-02	7.0E-02	---	7.0E-02
2-Nitroaniline	4.6E+01	---	---	4.6E+01	---	4.6E+01
2-Nitrophenol	3.1E+02	---	---	3.1E+02	---	3.1E+02
3,3'-Dichlorobenzidine	3.2E+01	---	---	3.2E+01	---	3.2E+01
3-Nitroaniline	4.6E+01	---	---	4.6E+01	---	4.6E+01
4,6-Dinitro-2-methylphenol	3.1E+02	---	---	3.1E+02	---	3.1E+02
4-Bromophenyl phenyl ether	9.5E-01	---	1.3E+00	9.5E-01	---	9.5E-01
4-Chloro-3-methylphenol	7.7E+02	---	---	7.7E+02	---	7.7E+02
4-Chloroaniline	6.1E+02	---	---	6.1E+02	---	6.1E+02
4-Chlorophenyl phenyl ether	9.5E-01	---	---	9.5E-01	---	9.5E-01
4-Nitroaniline	3.7E+02	---	---	3.7E+02	---	3.7E+02
4-Nitrophenol	3.1E+02	---	---	3.1E+02	---	3.1E+02
Acenaphthene	7.4E+03	1.6E-02	1.6E-02	1.6E-02	---	1.6E-02

TABLE 15 - WETLAND AND POND SEDIMENT EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 21 of RI/FS Work Plan ⁽²⁾			PSV	Potential Site-Specific Background Values ⁽⁶⁾	Extent Evaluation Comparison Value
	Tot Sed _{Comb} ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
Acenaphthylene	7.4E+03	4.4E-02	4.4E-02	4.4E-02	---	4.4E-02
Acetophenone	1.5E+04	---	---	1.5E+04	---	1.5E+04
Aniline	1.1E+03	---	---	1.1E+03	---	1.1E+03
Anthracene	3.7E+04	8.5E-02	8.5E-02	8.5E-02	---	8.5E-02
Atrazine (Aatrex)	6.4E+01	---	---	6.4E+01	---	6.4E+01
Benzaldehyde	7.3E+04	---	---	7.3E+04	---	7.3E+04
Benzidine	6.2E-02	---	---	6.2E-02	---	6.2E-02
Benzo(a)anthracene	1.6E+01	2.6E-01	2.6E-01	2.6E-01	---	2.6E-01
Benzo(a)pyrene	1.6E+00	4.3E-01	4.3E-01	4.3E-01	---	4.3E-01
Benzo(b)fluoranthene	1.6E+01	---	---	1.6E+01	---	1.6E+01
Benzo(g,h,i)perylene	3.7E+03	---	---	3.7E+03	---	3.7E+03
Benzo(k)fluoranthene	1.6E+02	---	---	1.6E+02	---	1.6E+02
Benzoic acid	6.1E+05	---	---	6.1E+05	---	6.1E+05
Benzyl alcohol	4.6E+04	---	---	4.6E+04	---	4.6E+04
Biphenyl	7.7E+03	---	1.1E+00	1.1E+00	---	1.1E+00
Bis(2-Chloroethoxy)methane	1.3E+01	---	---	1.3E+01	---	1.3E+01
Bis(2-Chloroethyl)ether	5.0E+01	---	---	5.0E+01	---	5.0E+01
Bis(2-Chloroisopropyl)ether	2.0E+02	---	---	2.0E+02	---	2.0E+02
Bis(2-Ethylhexyl)phthalate	2.4E+02	1.8E-01	1.8E-01	1.8E-01	---	1.8E-01
Butyl benzyl phthalate	3.1E+04	---	1.1E+01	1.1E+01	---	1.1E+01
Caprolactam	7.7E+04	---	---	7.7E+04	---	7.7E+04
Carbazole	7.1E+02	---	---	7.1E+02	---	7.1E+02
Chrysene	1.6E+03	3.8E-01	3.8E-01	3.8E-01	---	3.8E-01
Dibenz(a,h)anthracene	1.6E+00	6.3E-02	6.3E-02	6.3E-02	---	6.3E-02
Dibenzofuran	6.1E+02	---	2.0E+00	2.0E+00	---	2.0E+00
Diethyl phthalate	1.2E+05	---	6.3E-01	6.3E-01	---	6.3E-01
Dimethyl phthalate	1.2E+05	---	---	1.2E+05	---	1.2E+05
Di-n-butyl phthalate	1.5E+04	---	1.1E+01	1.1E+01	---	1.1E+01
Di-n-octyl phthalate	3.1E+03	---	---	3.1E+03	---	3.1E+03
Fluoranthene	4.9E+03	6.0E-01	6.0E-01	6.0E-01	---	6.0E-01
Fluorene	4.9E+03	1.9E-02	1.9E-02	1.9E-02	---	1.9E-02

TABLE 15 - WETLAND AND POND SEDIMENT EXTENT EVALUATION COMPARISON VALUES⁽¹⁾

Chemicals of Interest	Potential Preliminary Screening Values (PSVs) from Table 21 of RI/FS Work Plan ⁽²⁾			PSV	Potential Site-Specific Background Values ⁽⁶⁾	Extent Evaluation Comparison Value
	Tot Sed _{Comb} ⁽³⁾	TCEQ Ecological Benchmark for Sediment ⁽⁴⁾	EPA EcoTox Threshold ⁽⁵⁾			
Hexachlorobenzene	8.9E+00	---	---	8.9E+00	---	8.9E+00
Hexachlorocyclopentadiene	9.2E+02	---	---	9.2E+02	---	9.2E+02
Hexachloroethane	1.5E+02	---	1.0E+00	1.0E+00	---	1.0E+00
Indeno(1,2,3-cd)pyrene	1.6E+01	---	---	1.6E+01	---	1.6E+01
Isophorone	1.5E+04	---	---	1.5E+04	---	1.5E+04
Nitrobenzene	7.7E+01	---	---	7.7E+01	---	7.7E+01
n-Nitrosodimethylamine	1.1E+00	---	---	1.1E+00	---	1.1E+00
n-Nitrosodi-n-propylamine	6.3E-01	---	---	6.3E-01	---	6.3E-01
n-Nitrosodiphenylamine	9.0E+02	---	---	9.0E+02	---	9.0E+02
o-Cresol	7.7E+03	---	---	7.7E+03	---	7.7E+03
Pentachlorophenol	5.6E+01	---	---	5.6E+01	---	5.6E+01
Phenanthrene	3.7E+03	2.4E-01	2.4E-01	2.4E-01	---	2.4E-01
Phenol	4.6E+04	---	---	4.6E+04	---	4.6E+04
Pyrene	3.7E+03	6.7E-01	6.7E-01	6.7E-01	---	6.7E-01
Pyridine	7.3E+02	---	---	7.3E+02	---	7.3E+02
Chloride	---	---	---	NV	NV	NV
Sulfate	---	---	---	NV	NV	NV
Total Moisture	---	---	---	NV	NV	NV
Total Organic Carbon	---	---	---	NV	NV	NV

Notes

1. All values in mg/kg.
2. Values from Table 21 of RI/FS Work Plan (updated to reflect changes since 2005 where applicable).
3. ^{Tot}Sed_{Comb} PCL = TCEQ Protective Concentration Level for total sediment combined pathway (includes inhalation; ingestion; dermal pathways).
4. From Table 3-3 of TCEQ "Guidance for Conducting Ecological Risk Assessments at Remediation Sites in Texas".
5. From Table 2 of EPA "Ecotox Thresholds" ECO Update January 1996.
6. 95% UTL calculated from site-specific background samples.
7. Value listed is for total Chlordane.
8. NV = No Preliminary Screening Value.

**TABLE 16 - DETECTED RI WETLAND SEDIMENT SAMPLE CONCENTRATIONS
EXCEEDING EXTENT EVALUATION COMPARISON VALUES**

Sample Location	Sample Depth (ft)	Chemical of Interest	Concentration (mg/kg)	Extent Evaluation Comparison Value⁽¹⁾ (mg/kg)
NA1SE01	0-0.5	4,4'-DDT	0.00204J ⁽²⁾	0.00119
NA2SE02	0-0.5	4,4'-DDT	0.00194J	0.00119
NA3SE03	0-0.5	4,4'-DDT	0.0016J	0.00119
NA4SE04	0-0.5	4,4'-DDT	0.00454J	0.00119
NB1SE05	0-0.5	Nickel	23.1	20.9
NB2SE06	1-2	2-Methylnaphthalene	0.43	0.07
		Acenaphthene	0.037J	0.016
		Fluorene	0.088	0.019
NB3SE07	0-0.5	4,4'-DDT	0.00186J	0.00119
NB4SE08	0-0.5	4,4'-DDT	0.00922J+	0.00119
		Acenaphthene	0.113	0.016
		Anthracene	0.188	0.0853
		Benzo(a)anthracene	0.993	0.261
		Benzo(a)pyrene	1.3J	0.43
		Chrysene	1.27	0.384
		Copper	39.6	34
		Dibenz(a,h)anthracene	0.337J-	0.0634
		Fluoranthene	2.17	0.6
		Fluorene	0.127	0.019
		Lead	88.1	46.7
		Phenanthrene	1.3	0.24
		Pyrene	1.64J-	0.665
		Zinc	601	280
NC3SE11	0-0.5	4,4'-DDT	0.00143J	0.00119
NC4SE12	0-0.5	4,4'-DDT	0.00468J+	0.00119

**TABLE 16 - DETECTED RI WETLAND SEDIMENT SAMPLE CONCENTRATIONS
EXCEEDING EXTENT EVALUATION COMPARISON VALUES**

Sample Location	Sample Depth (ft)	Chemical of Interest	Concentration (mg/kg)	Extent Evaluation Comparison Value⁽¹⁾ (mg/kg)
NF4SE13	0-0.5	4,4'-DDT	0.00254J+	0.00119
		Arsenic	12.8	8.66
		Copper	35.7	34
		Lead	64.7	46.7
		Nickel	27.7	20.9
		Zinc	903	280
NG1SE14	0-0.5	Nickel	23.8	20.9
NG2SE15	0-0.5	4,4'-DDT	0.00189J	0.00119
NG4SE17	0-0.5	Dieldrin	0.00266	0.000715
		Zinc	255	280
2WSED3	0-0.5	Acenaphthylene	0.346J	0.044
		Anthracene	0.241J	0.0853
		Benzo(a)pyrene	0.631J	0.43
		Chrysene	2.73	0.384
		Dibenz(a,h)anthracene	2.83	0.0634
		Pyrene	0.729J	0.665
2WSED4	0-0.5	4,4'-DDE	0.00256J	0.00207
		Acenaphthylene	0.545J	0.044
		Anthracene	0.334J	0.0853
		Benzo(a)pyrene	0.972	0.43
		Chrysene	4.05	0.384
		Dibenz(a,h)anthracene	2.91	0.0634
		Dieldrin	0.00211J	0.000715
		Nickel	21.3	20.9
		Pyrene	1.18	0.665
2WSED5	0-0.5	Acenaphthylene	0.139J	0.044
		Dibenz(a,h)anthracene	1.83	0.0634

**TABLE 16 - DETECTED RI WETLAND SEDIMENT SAMPLE CONCENTRATIONS
EXCEEDING EXTENT EVALUATION COMPARISON VALUES**

Sample Location	Sample Depth (ft)	Chemical of Interest	Concentration (mg/kg)	Extent Evaluation Comparison Value⁽¹⁾ (mg/kg)
2WSED9	0-0.5	4,4'-DDT Dibenz(a,h)anthracene	0.00206J 0.129	0.00119 0.0634
2WSED10	0-0.5	4,4'-DDT	0.0015J	0.00119
2WSED12	0-0.5	4,4'-DDT	0.00212J	0.00119
2WSED15	0-0.5	Chrysene Copper Lead Zinc	0.39J 49 50 539	0.384 34 46.7 280
2WSED17	0-0.5	Acenaphthene Anthracene Benzo(a)anthracene Benzo(a)pyrene Chrysene Dibenz(a,h)anthracene Fluoranthene Fluorene Lead Phenanthrene Pyrene Zinc	0.133 0.257 0.724 0.618 0.743 0.312 1.43 0.139 237 1.18 1.34 404	0.016 0.0853 0.261 0.43 0.384 0.0634 0.6 0.019 46.7 0.24 0.665 280
3WSED9	0-0.5	Zinc	319 J	280

Notes:

(1) Extent Evaluation Comparison Values from Table 22 of RI Report.

(2) Data Qualifiers: J = estimated value; J- = estimated value, biased low; J+ = estimated value, biased high.

**TABLE 17 - DETECTED RI WETLAND SURFACE WATER SAMPLE CONCENTRATIONS
EXCEEDING EXTENT EVALUATION COMPARISON VALUES**

Sample Location	Chemical of Interest	Total or Dissolved	Concentration (mg/L)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/L)
2WSW1	Acrolein	Total	0.00929J ⁽²⁾	0.005
	Copper	Dissolved	0.011J	0.0036
	Mercury	Total	0.00004J	0.000025
2WSW2	Copper	Dissolved	0.0053J	0.0036
	Mercury	Dissolved	0.00011J	0.000025
		Total	0.00007J	0.000025
2WSW6	Copper	Dissolved	0.0068J	0.0036
	Manganese	Total	0.34	0.1
		Dissolved	0.33	0.1

Notes:

(1) Extent Evaluation Comparision Values from Table 14 of RI Report.

(2) Data Qualifier: J = estimated value.

**TABLE 18 - DETECTED RI POND SEDIMENT SAMPLE CONCENTRATIONS
EXCEEDING EXTENT EVALUATION COMPARISON VALUES**

Sample Location	Chemical of Interest	Concentration (mg/kg)	Extent Evaluation Comparison Value⁽¹⁾ (mg/kg)
SPSE01	Zinc	614	280
SPSE02	Zinc	813	280
SPSE03	4,4'-DDT	0.00157J ⁽²⁾	0.00119
	Zinc	999	280

Notes:

(1) Extent Evaluation Comparison Values from Table 22 of RI Report.

(2) Data Qualifier: J = estimated value.

**TABLE 19 - DETECTED RI POND SURFACE WATER SAMPLE CONCENTRATIONS
EXCEEDING EXTENT EVALUATION COMPARISON VALUES**

Sample Location	Chemical of Interest	Total or Dissolved	Concentration (mg/L)	Extent Evaluation Comparison Value⁽¹⁾ (mg/L)
FWPSW01	Arsenic	Total	0.013J ⁽²⁾	0.0014
	Silver	Dissolved	0.0027J	0.00019
	Thallium	Total	0.0077J	0.00047
FWPSW02	Arsenic	Total	0.012J	0.0014
	Silver	Dissolved	0.0021J	0.00019
FWPSW03	Silver	Dissolved	0.0029J	0.00019
	Thallium	Total	0.0062J	0.00047
SPSW01	Manganese	Total	1.29	0.1
	Manganese	Dissolved	1.06	0.1
	Silver	Dissolved	0.00095J	0.00019
	Thallium	Dissolved	0.0014J	0.00047
SPSW02	Manganese	Total	1.44	0.1
	Manganese	Dissolved	0.89	0.1
	Silver	Dissolved	0.00094J	0.00019
	Thallium	Dissolved	0.0032J	0.00047
SPSW03	Manganese	Total	0.82	0.1
	Manganese	Dissolved	0.74	0.1
	Silver	Dissolved	0.0014J	0.00019
	Thallium	Dissolved	0.0019J	0.00047

Notes:

(1) Extent Evaluation Comparison Values from Table 14 of RI Report.

(2) Data Qualifier: J = estimated value.

**TABLE 20 - DETECTED ZONE A GROUNDWATER CONCENTRATIONS
EXCEEDING EXTENT EVALUATION COMPARISON VALUES**

Sample Location	Sample Date	Chemical of Interest	Concentration (mg/L)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/L)
NB4PZ01	8/3/2006	Chromium Endosulfan II Nickel Silver	0.14J 0.000021J ⁽²⁾ 0.14J 0.0088J	0.1 0.000009 0.013 0.00019
NC3PZ02	8/2/2006	Chromium Silver	0.16 0.017J	0.1 0.00019
ND1PZ03	8/1-2/2006	Benzene Endosulfan II Silver Vinyl chloride	0.657 0.0000103J 0.0099J 1.22	0.11 0.000009 0.00019 0.2
ND2MW01	8/3/2006	1,1,1-Trichloroethane 1,1-Dichloroethene 1,2,3-Trichloropropane 1,2-Dichloroethane 1,2-Dichloropropane 4,4'-DDE Benzene Chromium cis-1,2-Dichloroethene Dieldrin gamma-BHC (Lindane) Methylene chloride Silver Tetrachloroethene Trichloroethene	15.4 23.5 25.5J- 58.8 3.45J 0.00027 5.39J 0.15J 13.4 0.0000264J 0.00016J 300 0.012J 20.5 84	1.6 0.7 0.029 0.5 0.5 0.00014 0.11 0.1 7 0.000002 0.000016 0.5 0.00019 0.5 0.5
		1,1-Dichloroethene 1,2-Dichloroethene(Total) Benzene cis-1,2-Dichloroethene Vinyl chloride	2.92 19.2 0.518J 19.2 0.331J	0.7 0.68 0.11 7 0.2
	11/8/2007	1,1-Dichloroethene 1,2,3-Trichloropropane 1,2-Dichloroethane 1,2-Dichloroethene(Total) Benzene cis-1,2-Dichloroethene Methylene chloride Vinyl chloride	2.35 0.374J 1.25 12.5 0.375J 12.5 2.88 0.978J	0.7 0.029 0.5 0.68 0.11 7 0.5 0.2
	6/18/2008	1,1-Dichloroethene 1,2,3-Trichloropropane 1,2-Dichloroethane 1,2-Dichloroethene(Total) Benzene cis-1,2-Dichloroethene Methylene chloride Vinyl chloride	2.35 0.374J 1.25 12.5 0.375J 12.5 2.88 0.978J	0.7 0.029 0.5 0.68 0.11 7 0.5 0.2

**TABLE 20 - DETECTED ZONE A GROUNDWATER CONCENTRATIONS
EXCEEDING EXTENT EVALUATION COMPARISON VALUES**

Sample Location	Sample Date	Chemical of Interest	Concentration (mg/L)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/L)
ND3MW02	8/3/2006	1,1,1-Trichloroethane	2.25	1.6
		1,2,3-Trichloropropane	0.497J-	0.029
		Anthracene	0.000832J	0.00018
		Chromium	0.15J	0.1
		gamma-BHC (Lindane)	0.00019J	0.000016
		Silver	0.0063J	0.00019
		Tetrachloroethene	1.92	0.5
	11/8/2007	Trichloroethene	6.04	0.5
		1,1,1-Trichloroethane	14	1.6
	6/18/2008	1,2,3-Trichloropropane	1.57	0.029
		1,2-Dichloroethene(Total)	9.37	0.68
		Benzene	0.158J	0.11
		cis-1,2-Dichloroethene	9.37	7
		Tetrachloroethene	2.1	0.5
		Trichloroethene	17.7	0.5
		1,1,1-Trichloroethane	42	1.6
ND3MW29	6/5/2007	1,1-Dichloroethene	0.975J	0.7
		1,2,3-Trichloropropane	3.86J	0.029
		1,2-Dichloroethene(Total)	13.6	0.68
		cis-1,2-Dichloroethene	13.6	7
		Tetrachloroethene	34.8	0.5
		Toluene	0.691J	0.48
		Trichloroethene	76	0.5
	11/8/2007	1,1,1-Trichloroethane	156	1.6
		1,2,3-Trichloropropane	44.3J	0.029
		1,2-Dichloroethane	328	0.5
		Endosulfan II	0.00012J	0.000009
		gamma-BHC (Lindane)	0.00153	0.000016
	6/18/2008	Methylene chloride	1230	0.5
		Trichloroethene	61.2J	0.5
		1,1,1-Trichloroethane	195	1.6
		1,1-Dichloroethene	22J	0.7
		1,2,3-Trichloropropane	53.1J	0.029
	6/18/2008	1,2-Dichloroethane	292	0.5
		Methylene chloride	1100	0.5
		Trichloroethene	69.4J	0.5
		1,1,1-Trichloroethane	234	1.6
		1,1-Dichloroethene	21.3J	0.7
		1,2,3-Trichloropropane	44.4J	0.029
		1,2-Dichloroethane	347	0.5
		1,2-Dichloroethene(Total)	24.5J	0.68
		Benzene	5.92J	0.11

**TABLE 20 - DETECTED ZONE A GROUNDWATER CONCENTRATIONS
EXCEEDING EXTENT EVALUATION COMPARISON VALUES**

Sample Location	Sample Date	Chemical of Interest	Concentration (mg/L)	Extent Evaluation Comparison Value ⁽¹⁾ (mg/L)
ND3PZ04	7/31/2006	1,1,1-Trichloroethane	62.7	1.6
		1,1-Dichloroethene	29.2	0.7
		1,2,3-Trichloropropane	28.2	0.029
		1,2-Dichloropropane	3.36J	0.5
		Benzene	8.24J	0.11
		Carbon tetrachloride	7.58J	0.5
		cis-1,2-Dichloroethene	124	7
		Heptachlor epoxide	0.000025	0.0000036
		Silver	0.005J	0.00019
		Tetrachloroethene	7.86J	0.5
		Toluene	4.05J	0.48
		Trichloroethene	31.7	0.5
		Vinyl chloride	5.09J	0.2
ND4MW03	8/2/2006	Silver	0.013	0.00019
NE1MW04	8/3/2006	Chromium	0.11J	0.1
		Endosulfan II	0.0000138J	0.000009
		Silver	0.014J	0.00019
NE3MW05	8/2/2006	Anthracene	0.00138J	0.00018
		Ethylbenzene	0.74	0.25
		Naphthalene	0.322	0.13
		Phenanthrene	0.00638	0.0046
		Pyrene	0.000517J	0.00024
		Silver	0.001J	0.00019
	11/7/2007	Ethylbenzene	0.273	0.25
		Naphthalene	0.243	0.13
NF1PZ05	8/3/2006	Chromium	0.13J	0.11
		Endosulfan II	0.0000148J	0.000009
		Silver	0.0085J	0.00019
NF2MW06	8/3/2006	1,2,3-Trichloropropane	0.214	0.029
		Endosulfan sulfate	0.0000156J	0.000009
		Methylene chloride	0.944	0.5
		Silver	0.0032J	0.00019
		Trichloroethene	0.506	0.5
NF3PZ06	8/1/2006	Nickel	0.084	0.013
		Silver	0.011J	0.00019
SA4PZ07	8/3/2006	Chromium	0.14J	0.1
		Endosulfan II	0.0000309J	0.000009
		Nickel	0.022J	0.013
		Silver	0.016J	0.00019
SB4MW07	8/1/2006	Silver	0.03J	0.00019

**TABLE 20 - DETECTED ZONE A GROUNDWATER CONCENTRATIONS
EXCEEDING EXTENT EVALUATION COMPARISON VALUES**

Sample Location	Sample Date	Chemical of Interest	Concentration (mg/L)	Extent Evaluation Comparison Value⁽¹⁾ (mg/L)
SD3PZ08	7/31/2006	Chromium Silver	0.15 0.012J	0.1 0.00019
SE1MW08	8/2/2006	Silver	0.011	0.00019
SE6MW09	7/31/2006	Silver	0.0024J	0.00019
SF5MW10	8/1/2006	gamma-BHC (Lindane)	0.000024J	0.000016
	6/4/2007	gamma-BHC (Lindane)	0.000042J	0.000016
SF6MW11	7/31/2006	Silver	0.0099J	0.00019
SF7MW12	7/31/2006	Silver	0.0044J	0.00019
SG2MW13	8/1/2006	Silver	0.015J	0.00019
SH7MW14	7/31/2006	Silver	0.0028J	0.00019
SJ1MW15	8/2/2006	Endosulfan sulfate	0.000104	0.000009
		Heptachlor epoxide	0.0000201J	0.0000036
		Silver	0.0088	0.00019
SJ7MW16	7/31/2006	Silver	0.0048J	0.00019
SL8MW17	8/3/2006	Silver	0.028J	0.00019

Notes:

(1) Extent Evaluation Comparison Values from Table 28 of RI Report.

(2) Data qualifiers: J = estimated value. J- = estimated value, biased low.

TABLE 21 - ZONE B GROUNDWATER CONCENTRATIONS

Sample Location	Sample Date	Chemical of Interest	Concentration (mg/L)	Extent Evaluation Comparison Value (mg/L) ¹
ND4MW24B	6/5/2007	1,1,1-Trichloroethane	<0.000155	1.6
		1,1-Dichloroethene	<0.000226	0.7
		1,2,3-Trichloropropane	<0.000151	0.029
		1,2-Dichloroethane	0.00157J ⁽²⁾	0.5
		1,2-Dichloropropane	<0.0001	0.5
		4,4'-DDE	<0.00000195	0.6
		Anthracene	<0.000102	2,200
		Benzene	<0.000184	0.5
		Carbon tetrachloride	<0.000124	0.5
		cis-1,2-Dichloroethene	0.00431J	7
		Dieldrin	<0.00000425	0.013
		Endosulfan II	<0.0000018	44
		Endosulfan sulfate	<0.0000016	44
		Ethylbenzene	<0.000077	70
		gamma-BHC (Lindane)	<0.00000125	0.02
		Heptachlor epoxide	<0.000002	0.02
		Methylene chloride	0.00437J	0.5
		Naphthalene	<0.000053	57
NE3MW30B	12/3/2007	Nickel	<0.0009	15
		Phenanthrene	<0.000137	220
		Pyrene	<0.00009	220
		Tetrachloroethene	0.000881J	0.5
		Thallium	<0.0038	0.2
		Toluene	<0.000093	100
		Trichloroethene	0.00203J	0.5
		Vinyl chloride	<0.000163	0.2
		1,1,1-Trichloroethane	64⁽³⁾	1.6
		1,1-Dichloroethene	10.2J	0.7
		1,2,3-Trichloropropane	45.7	0.029
		1,2-Dichloroethane	176	0.5
		1,2-Dichloropropane	<0.499	0.5
		Anthracene	<0.000104	2,200
		Benzene	<0.921	0.5
		Carbon tetrachloride	<0.621	0.5
		cis-1,2-Dichloroethene	<0.768	7
		Ethylbenzene	<0.387	70
		Methylene chloride	738	0.5
		Naphthalene	<1.84	57
		Nickel	<0.00084	15
		Phenanthrene	0.00576	220
		Pyrene	<0.000092	220
		Tetrachloroethene	23.8J	0.5
		Thallium	<0.0038	0.2
		Toluene	<0.466	100
		Trichloroethene	170	0.5
		Vinyl chloride	<0.817	0.2

TABLE 21 - ZONE B GROUNDWATER CONCENTRATIONS

Sample Location	Sample Date	Chemical of Interest	Concentration (mg/L)	Extent Evaluation Comparison Value (mg/L) ¹
NE4MW31B	6/18/2008	1,1,1-Trichloroethane	<0.000155	1.6
		1,1-Dichloroethene	<0.000226	0.7
		1,2,3-Trichloropropane	<0.000151	0.029
		1,2-Dichloroethane	<0.000184	0.5
		Benzene	<0.000184	0.5
		Carbon tetrachloride	<0.000124	0.5
		cis-1,2-Dichloroethene	0.000423J	7
		Methylene chloride	0.00218J	0.5
		Tetrachloroethene	<0.000081	0.5
		Trichloroethene	<0.000123	0.5
NG3MW25B	6/6/2007	Vinyl chloride	<0.000163	0.2
		1,1,1-Trichloroethane	<0.000155	1.6
		1,1-Dichloroethene	<0.000226	0.7
		1,2,3-Trichloropropane	<0.000151	0.029
		1,2-Dichloroethane	<0.000184	0.5
		1,2-Dichloropropane	<0.0001	0.5
		4,4'-DDE	<0.00000195	0.6
		Anthracene	<0.000102	2200
		Benzene	<0.000184	0.5
		Carbon tetrachloride	<0.000124	0.5
		cis-1,2-Dichloroethene	<0.000154	7
		Dieldrin	<0.00000425	0.013
		Endosulfan II	<0.0000018	44
		Endosulfan sulfate	<0.0000016	44
		Ethylbenzene	<0.000077	70
		gamma-BHC (Lindane)	<0.00000125	0.02
		Heptachlor epoxide	<0.000002	0.02
		Methylene chloride	<0.000675	0.5
		Naphthalene	<0.000053	57
		Nickel	<0.0009	15
		Phenanthrene	<0.000137	220
		Pyrene	<0.00009	220
		Tetrachloroethene	<0.000081	0.5
		Thallium	<0.0038	0.2
		Toluene	<0.000093	100
		Trichloroethene	<0.000123	0.5
		Vinyl chloride	<0.000163	0.2

TABLE 21 - ZONE B GROUNDWATER CONCENTRATIONS

Sample Location	Sample Date	Chemical of Interest	Concentration (mg/L)	Extent Evaluation Comparison Value (mg/L) ¹
OMW27B	6/4/2007	1,1,1-Trichloroethane	<0.000155	1.6
		1,1-Dichloroethene	<0.000226	0.7
		1,2,3-Trichloropropane	<0.000151	0.029
		1,2-Dichloroethane	<0.000184	0.5
		1,2-Dichloropropane	<0.0001	0.5
		4,4'-DDE	<0.00000195	0.6
		Anthracene	<0.000102	2200
		Benzene	<0.000184	0.5
		Carbon tetrachloride	<0.000124	0.5
		cis-1,2-Dichloroethene	<0.000154	7
		Dieldrin	<0.00000425	0.013
		Endosulfan II	<0.0000018	44
		Endosulfan sulfate	<0.0000016	44
		Ethylbenzene	<0.000077	70
		gamma-BHC (Lindane)	<0.00000125	0.02
		Heptachlor epoxide	<0.000002	0.02
		Methylene chloride	<0.000774	0.5
		Naphthalene	<0.000053	57
		Nickel	<0.00045	15
		Phenanthrene	<0.000137	220
		Pyrene	<0.00009	220
		Tetrachloroethene	<0.000081	0.5
		Thallium	<0.0019	0.2
		Toluene	<0.000093	100
		Trichloroethene	<0.000123	0.5
		Vinyl chloride	<0.000163	0.2

Notes:

(1) Extent Evaluation Comparison Values from Table 28 of RI Report (human health PSVs only).

(2) Data qualifiers: J = estimated value.

(3) Bolded values and detection limits exceed extent evaluation comparison value.

TABLE 22 - ZONE C GROUNDWATER CONCENTRATIONS

Sample Location	Sample Date	Chemical of Interest	Concentration (mg/L)	Extent Evaluation Comparison Value (mg/L) ¹
NE4MW32C	6/18/2008	1,1,1-Trichloroethane	0.709	20
		1,1-Dichloroethene	<0.000226	0.7
		1,2,3-Trichloropropane	0.321	0.029
		1,2-Dichloroethane	<0.000184	0.5
		Benzene	0.0459 ⁽²⁾	0.5
		Carbon tetrachloride	<0.000124	0.5
		cis-1,2-Dichloroethene	4.62	7
		Methylene chloride	<0.000104	0.5
		Tetrachloroethene	1.35⁽³⁾	0.5
	7/31/2008	Trichloroethene	1.89	0.5
		Vinyl chloride	<0.000163	0.2
		1,1,1-Trichloroethane	0.18	20
	9/30/2008	1,1-Dichloroethene	0.0379	0.7
		1,2,3-Trichloropropane	0.219	0.029
		1,2-Dichloroethane	<0.0018	0.5
		Benzene	0.0548	0.5
		Carbon tetrachloride	<0.00312	0.5
		cis-1,2-Dichloroethene	3.27	7
		Methylene chloride	<0.00192	0.5
		Tetrachloroethene	<0.00306	0.5
		Trichloroethene	<0.00236	0.5
		Vinyl chloride	<0.00310	0.2
		1,1,1-Trichloroethane	<0.000096	20
		1,1-Dichloroethene	0.00177J	0.7
NG3CPT1	7/31/2008	1,2,3-Trichloropropane	0.0119	0.029
		1,2-Dichloroethane	<0.00009	0.5
		Benzene	0.0012J	0.5
		Carbon tetrachloride	<0.000156	0.5
		cis-1,2-Dichloroethene	0.168	7
		Methylene chloride	<0.000096	0.5
		Tetrachloroethene	0.00648	0.5
		Trichloroethene	0.00639	0.5
		Vinyl chloride	<0.000155	0.2
		1,1,1-Trichloroethane	<0.000096	20
		1,1-Dichloroethene	0.00143J	0.7
		1,2,3-Trichloropropane	0.0042J	0.029

TABLE 22 - ZONE C GROUNDWATER CONCENTRATIONS

Sample Location	Sample Date	Chemical of Interest	Concentration (mg/L)	Extent Evaluation Comparison Value (mg/L) ¹
NE4CPT2	7/31/2008	1,1,1-Trichloroethane	<0.000096	20
		1,1-Dichloroethene	<0.000201	0.7
		1,2,3-Trichloropropane	<0.000091	0.029
		1,2-Dichloroethane	<0.000090	0.5
		Benzene	<0.000065	0.5
		Carbon tetrachloride	<0.000156	0.5
		cis-1,2-Dichloroethene	<0.000162	7
		Methylene chloride	<0.000096	0.5
		Tetrachloroethene	<0.000153	0.5
		Trichloroethene	<0.000118	0.5
NC2CPT3	7/31/2008	Vinyl chloride	<0.000155	0.2
		1,1,1-Trichloroethane	<0.000096	20
		1,1-Dichloroethene	<0.000201	0.7
		1,2,3-Trichloropropane	<0.000091	0.029
		1,2-Dichloroethane	<0.000090	0.5
		Benzene	<0.000065	0.5
		Carbon tetrachloride	<0.000156	0.5
		cis-1,2-Dichloroethene	<0.000162	7
		Methylene chloride	<0.000096	0.5
		Tetrachloroethene	<0.000153	0.5
OCPT4	7/31/2008	Trichloroethene	<0.000118	0.5
		Vinyl chloride	<0.000155	0.2
		1,1,1-Trichloroethane	<0.000096	20
		1,1-Dichloroethene	<0.000201	0.7
		1,2,3-Trichloropropane	<0.000091	0.029
		1,2-Dichloroethane	<0.000090	0.5
		Benzene	<0.000065	0.5
		Carbon tetrachloride	<0.000156	0.5
		cis-1,2-Dichloroethene	<0.000162	7
		Methylene chloride	<0.000096	0.5
OCPT5	1/13/2009	Tetrachloroethene	<0.000153	0.5
		Trichloroethene	<0.000118	0.5
		Vinyl chloride	<0.000155	0.2
		1,1,1-Trichloroethane	<0.000096	20
		1,1-Dichloroethene	<0.000201	0.7
		1,2,3-Trichloropropane	<0.000091	0.029
		1,2-Dichloroethane	<0.000090	0.5
		Benzene	<0.000065	0.5
		Carbon tetrachloride	<0.000156	0.5
		cis-1,2-Dichloroethene	<0.000162	7

Notes:

(1) Extent Evaluation Comparison Values from Table 28 of RI Report (human health PSVs only).

(2) Data qualifiers: J = estimated value.

(3) Bolded values exceed extent evaluation comparison value.

TABLE 23
EXPOSURE POINT CONCENTRATIONS (mg/kg)
SOUTH AREA SURFACE SOIL*

Chemical of Interest*	Average	Max Detection	Min Detection	$\text{TotSoil}_{\text{Comb}}^{(1)}$	EPA Region 6 Soil Screening Criteria ⁽²⁾		95% UCL	Statistic Used ⁽³⁾	# of Detects/# of Samples
2-Methylnaphthalene	2.97E-02	5.01E-01	1.06E-02	2.48E+03	---		7.90E-02	97.5% KM (Chebyshev)	22 of 83
4,4'-DDD	3.07E-03	2.43E-02	2.64E-03	1.04E+02	1.10E+01	<	2.70E-04	median	5 of 83
4,4'-DDE	1.92E-03	6.93E-02	4.28E-04	7.32E+01	7.80E+00		7.52E-03	97.5% KM (Chebyshev)	17 of 83
4,4'-DDT	3.89E-03	6.25E-02	2.81E-04	6.84E+01	7.80E+00		1.03E-02	97.5% KM (Chebyshev)	37 of 83
Acenaphthene	6.08E-02	1.69E+00	1.13E-02	3.72E+04	3.30E+04		2.00E-01	97.5% KM (Chebyshev)	26 of 83
Acenaphthylene	4.55E-02	9.35E-01	1.84E-02	3.72E+04	---		1.21E-01	97.5% KM (Chebyshev)	19 of 83
Aluminum	5.34E+03	1.52E+04	4.14E+02	5.70E+05	1.00E+05		5.95E+03	95% Student's-t	83 of 83
Anthracene	9.71E-02	2.46E+00	1.12E-02	1.86E+05	1.00E+05		2.99E-01	97.5% KM (Chebyshev)	37 of 83
Antimony	1.65E+00	5.14E+00	2.00E-01	3.06E+02	4.50E+02		2.24E+00	97.5% KM (Chebyshev)	72 of 83
Aroclor-1254	1.46E-01	7.98E+00	3.34E-03	7.10E+00	8.30E-01		7.64E-01	97.5% KM (Chebyshev)	13 of 85
Arsenic	3.74E+00	2.43E+01	2.60E+01	1.96E+02	1.80E+00		6.49E+00	97.5% KM (Chebyshev)	71 of 83
Barium	3.45E+02	2.18E+03	1.86E+01	8.90E+04	7.90E+04		5.84E+02	97.5% KM (Chebyshev)	83 of 83
Benz(a)anthracene	3.57E-01	5.02E+00	2.86E-02	2.36E+01	2.30E+00		9.03E-01	97.5% KM (Chebyshev)	30 of 83
Benz(a)pyrene	4.53E-01	4.57E+00	1.03E-02	2.37E+00	2.30E-01		1.09E+00	97.5% KM (Chebyshev)	65 of 83
Benz(b)fluoranthene	5.88E-01	5.42E+00	4.08E-02	2.36E+01	2.30E+00		1.10E+00	95% KM (Chebyshev)	61 of 83
Benz(g,h,i)perylene	3.04E-01	4.24E+00	9.89E-03	1.86E+04	---		7.89E-01	97.5% KM (Chebyshev)	51 of 83
Benz(k)fluoranthene	2.44E-01	4.25E+00	1.95E-02	2.37E+02	2.30E+01		6.58E-01	97.5% KM (Chebyshev)	33 of 83
Beryllium	4.08E-01	4.60E+00	1.40E-02	2.47E+02	2.20E+03		7.68E-01	97.5% KM (Chebyshev)	82 of 83
Boron	5.56E+00	5.44E+01	2.43E+00	1.90E+05	1.00E+05		7.07E+00	97.5% KM (Bootstrap)	34 of 83
Butyl Benzyl Phthalate	1.90E-02	2.97E-01	1.29E-02	1.00E+04	2.40E+02	<	1.25E-02	median	6 of 83
Cadmium	4.69E-01	9.71E+00	2.30E-02	8.52E+02	5.60E+02		1.25E+00	97.5% KM (Chebyshev)	50 of 83
Carbazole	6.20E-02	1.54E+00	1.04E-02	9.54E+02	9.60E+01		1.95E-01	97.5% KM (Chebyshev)	29 of 83
Chromium	1.61E+01	1.36E+02	3.37E+00	5.71E+04	5.00E+02		2.68E+01	97.5% Chebyshev	83 of 83
Chrysene	4.09E-01	4.87E+00	9.32E-03	2.36E+03	2.30E+02		9.84E-01	97.5% KM (Chebyshev)	56 of 83
Cobalt	3.71E+00	1.60E+01	4.90E-02	2.70E+02	2.10E+03		5.25E+00	97.5% KM (Chebyshev)	82 of 83
Copper	2.80E+01	2.16E+02	1.55E+00	3.69E+04	4.20E+04		5.22E+01	97.5% KM (Chebyshev)	83 of 83
Dibenz(a,h)anthracene	1.87E-01	1.64E+00	6.39E-02	2.37E+00	2.30E-01		2.45E-01	95% KM (Bootstrap)	36 of 83
Dibenzofuran	3.41E-02	8.21E+01	1.67E-02	2.73E+03	1.70E+03		7.23E-02	95% KM (BCA)	17 of 83
Diethyltin	1.40E-03	2.05E-02	2.43E-04	1.14E+00	1.20E-01		3.14E-03	97.5% KM (Chebyshev)	21 of 83
Di-n-butyl Phthalate	9.38E-02	7.53E-01	3.68E-02	1.62E+04	6.80E+04		1.25E-01	97.5% KM (Chebyshev)	9 of 83
Endosulfan Sulfate	2.09E-03	7.13E-02	4.56E-04	4.09E+03	---		4.21E-03	95% KM (BCA)	17 of 83
Endrin Aldehyde	8.82E-03	7.38E-02	4.97E-04	2.04E+02	---		8.72E-03	97.5% KM (Chebyshev)	22 of 83
Endrin Ketone	2.25E-03	2.00E-02	4.69E-04	1.77E+02	---		4.41E-03	97.5% KM (Chebyshev)	18 of 83
Fluoranthene	8.00E-01	1.42E+01	1.33E-02	2.48E+04	2.40E+04		2.14E+00	97.5% KM (Chebyshev)	59 of 83
Fluorene	5.18E-02	1.11E+00	9.45E-03	2.48E+04	2.60E+04		1.57E-01	97.5% KM (Chebyshev)	28 of 83
gamma-Chlordane	1.23E-03	1.56E-02	7.10E-04	5.10E+01	---		2.90E-03	97.5% KM (Chebyshev)	8 of 83
Indeno(1,2,3-cd)pyrene	4.83E-01	6.49E+00	6.34E-02	2.37E+01	2.30E+00		9.31E-01	95% KM (Chebyshev)	63 of 83
Iron	1.63E+04	7.71E+04	3.45E+03	---	1.00E+05		2.40E+04	97.5% Chebyshev	83 of 83
Lead	6.96E+01	6.43E+02	2.82E+00	1.60E+03	8.00E+02		1.47E+02	97.5% Chebyshev	83 of 83
Lithium	7.86E+00	2.80E+01	6.50E-01	1.90E+03	2.30E+04		1.18E+01	97.5% Chebyshev	83 of 83
Manganese	2.57E+02	8.92E+02	5.93E+01	2.41E+04	3.50E+04		2.81E+02	95% Student's-t	83 of 83
Mercury	2.22E-02	6.60E-01	3.20E-03	3.26E+00	3.40E+02		7.42E-02	97.5% KM (Chebyshev)	37 of 83
Molybdenum	1.32E+00	8.42E+00	9.80E-02	4.51E+03	5.70E+03		2.40E+00	97.5% KM (Chebyshev)	71 of 83
Nickel	1.16E+01	3.67E+01	2.84E+00	7.94E+03	2.30E+04		1.50E+01	97.5% KM (Chebyshev)	83 of 83
Phenanthrene	5.13E-01	1.26E+01	1.39E-02	1.86E+04	---		1.06E+04	97.5% KM (Chebyshev)	57 of 83
Pyrene	5.32E-01	8.47E+00	1.21E-02	1.86E+04	3.20E+04		1.36E+00	97.5% KM (Chebyshev)	57 of 83
Strontium	7.06E+01	5.27E+02	1.65E+01	4.91E+05	1.00E+05		1.01E+02	95% Chebyshev	83 of 83
Tin	8.06E-01	4.95E+00	5.20E-01	3.97E+05	---		1.31E+00	97.5% KM (Chebyshev)	23 of 83
Titanium	2.98E+01	6.45E+02	1.15E+01	1.00E+06	---		6.30E+01	95% Chebyshev	83 of 83
Vanadium	1.38E+01	4.56E+01	5.42E+00	2.29E+03	1.10E+03		1.80E+01	97.5% Chebyshev	83 of 83
Zinc	6.01E+02	4.77E+03	1.23E+01	2.45E+05	1.00E+05		1.06E+03	97.5% Chebyshev	81 of 83

Notes:

* Surface soil was collected from 0 to 0.5 ft. below ground surface.

+ Chemicals of interest are any chemical measured in at least one sample at a frequency of detection greater than five percent. Bolded compounds have a maximum concentration that exceeded one-tenth of the screening value.

(1) $\text{TotSoil}_{\text{Comb}}$, PCL = TCEQ protective concentration Level for 30 acre source area Commercial/Industrial total soil combined pathway (includes inhalation; ingestion; dermal pathways).

(2) - From EPA's "Region 6 Human Health Medium-Specific Screening Levels 2004-2005". Industrial Outdoor Worker.

(3) - Recommended exposure point concentration to be used based on data distribution per Pro UCL (see Appendix A of BHHRA).

TABLE 24
EXPOSURE POINT CONCENTRATIONS (mg/kg)
SOUTH AREA SOIL*

Chemical of Interest*	Average	Max Detection	Min Detection	TotSoil _{Comb} ⁽¹⁾	EPA Region 6 Soil Screening Criteria ⁽²⁾	95% UCL	Statistic Used ⁽³⁾	# of Detects/# of Samples
1,3,5-Trimethylbenzene	9.89E-02	4.36E+00	2.67E-04	8.32E+01	7.80E+01	5.56E-01	97.5% KM (Chebyshev)	9 of 83
2-Butanone	3.29E-03	2.26E-02	9.92E-04	7.26E+04	3.40E+04	4.14E-03	95% KM (Bootstrap)	4 of 83
2-Hexanone	1.65E-03	2.07E-02	1.09E-03	7.92E+01	---	3.63E-02	97.5% KM (Chebyshev)	8 of 83
2-Methylnaphthalene	6.97E-02	7.21E+00	1.06E-02	2.48E+03	---	1.60E-01	95% KM (BCA)	32 of 166
4,4'-DDD	7.76E-03	1.12E+00	3.69E-04	1.04E+02	1.10E+01	5.08E-02	97.5% KM (Chebyshev)	21 of 166
4,4'-DDE	1.58E-03	6.93E-02	4.28E-04	7.32E+01	7.80E+00	2.81E-03	95% KM (BCA)	22 of 166
4,4'-DDT	3.75E-03	1.13E-01	2.81E-04	6.84E+01	7.80E+00	9.27E-03	97.5% KM (Chebyshev)	68 of 166
Acenaphthene	4.33E-02	1.69E+00	1.13E-02	3.72E+04	3.30E+04	1.16E-01	97.5% KM (Chebyshev)	35 of 166
Acenaphthylene	4.84E-02	1.20E+00	1.72E-02	3.72E+04	---	7.19E-02	95% KM (BCA)	37 of 166
Acetone	3.70E-02	1.60E-01	3.10E-02	8.11E+03	1.00E+05	5.41E-02	97.5% KM (Chebyshev)	10 of 83
Aluminum	6.45E+03	1.57E+04	4.14E+02	5.70E+05	1.00E+05	8.20E+03	97.5% Chebyshev	166 of 166
Anthracene	8.89E-02	2.46E+00	1.12E-02	1.86E+05	1.00E+05	1.24E-01	95% KM (BCA)	65 of 166
Antimony	1.45E+00	5.51E+00	2.00E-01	3.06E+02	4.50E+02	1.87E+00	97.5% KM (Chebyshev)	144 of 166
Aroclor-1254	2.16E-01	1.15E+01	3.34E-03	7.10E+00	8.30E-01	7.73E-01	97.5% KM (Chebyshev)	25 of 170
Arsenic	3.33E+00	2.43E+01	2.30E-01	1.96E+02	1.80E+00	4.92E+00	97.5% KM (Chebyshev)	139 of 166
Barium	2.37E+02	2.18E+03	1.86E+01	8.90E+04	7.90E+04	3.30E+02	95% Chebyshev	166 of 166
Benzene	3.89E-03	2.21E-02	3.39E-04	1.11E+02	1.60E+00	6.09E-03	97.5% KM (Chebyshev)	72 of 83
Benz(a)anthracene	2.69E-01	5.02E+00	1.18E-02	2.36E+01	2.30E+00	6.43E-01	97.5% KM (Chebyshev)	44 of 166
Benz(a)pyrene	3.48E-01	4.88E+00	9.99E-03	2.37E+00	2.30E-01	7.63E-01	97.5% KM (Chebyshev)	113 of 166
Benz(b)fluoranthene	4.77E-01	5.97E+00	4.08E-02	2.36E+01	2.30E+00	8.22E-01	95% KM (Chebyshev)	102 of 166
Benzo(g,h,i)perylene	2.17E-01	4.24E+00	9.89E-03	1.86E+04	---	4.94E-01	97.5% KM (Chebyshev)	81 of 166
Benzo(k)fluoranthene	1.58E-01	4.25E+00	1.58E-02	2.37E+02	2.30E+01	3.81E-01	97.5% KM (Chebyshev)	45 of 166
Beryllium	4.65E-01	4.60E+00	1.40E-02	2.47E+02	2.20E+03	5.25E-01	95% KM (BCA)	165 of 166
Boron	5.68E+00	5.44E+01	2.43E+00	1.92E+05	1.00E+05	6.51E+00	95% KM (Bootstrap)	72 of 166
Butyl Benzyl Phthalate	2.01E-02	6.17E-01	1.29E-02	1.00E+04	2.40E+02	4.72E-02	97.5% KM (Chebyshev)	10 of 166
Cadmium	3.40E-01	9.71E+00	2.30E-02	8.52E+02	5.60E+02	4.67E-01	95% KM (Bootstrap)	93 of 166
Carbazole	4.64E-02	1.54E+00	1.04E-02	9.54E+02	9.60E+01	1.19E-01	97.5% KM (Chebyshev)	42 of 166
Carbon Disulfide	1.67E-03	2.80E-02	9.87E-04	7.19E+03	7.20E+02	3.92E-03	97.5% KM (Chebyshev)	13 of 83
Chromium	1.35E+01	1.36E+02	2.03E+00	5.71E+04	5.00E+02	1.78E+01	95% Chebyshev	166 of 166
Chrysene	3.28E-01	4.87E+00	9.01E-03	2.36E+03	2.30E+02	7.12E-01	97.5% KM (Chebyshev)	93 of 166
Cobalt	4.11E+00	1.60E+01	4.90E-02	2.70E+02	2.10E+03	4.35E+00	95% Winsor-4	165 of 166
Copper	2.43E+01	4.87E+02	1.30E-01	3.69E+04	4.20E+04	4.01E+01	95% KM (Chebyshev)	164 of 166
Cyclohexane	2.65E-01	2.17E+01	6.26E-04	4.20E+04	6.80E+03	1.91E+00	97.5% KM (Chebyshev)	47 of 83
Diben(z,a)anthracene	1.48E-01	1.64E+00	6.19E-02	2.37E+00	2.30E-01	1.80E-01	95% KM (Bootstrap)	56 of 166
Dibenzofuran	3.34E-02	8.21E-01	1.67E-02	2.73E+03	1.70E+03	7.31E-02	97.5% KM (Chebyshev)	23 of 166
Dieldrin	8.89E-04	2.05E-02	2.43E-04	1.14E+00	1.20E-01	2.11E-03	97.5% KM (Chebyshev)	33 of 166
Di-n-butyl Phthalate	4.18E-02	7.53E-01	3.11E-02	1.62E+04	6.80E+04	7.65E-02	97.5% KM (Chebyshev)	11 of 166
Endosulfan Sulfate	1.27E-03	7.13E-02	7.13E-02	4.09E+03	---	2.30E-03	95% KM (BCA)	21 of 166
Endrin Aldehyde	2.01E-03	7.38E-02	4.97E-04	2.04E+02	---	3.54E-03	95% KM (BCA)	31 of 166
Endrin Ketone	1.35E-03	2.00E-02	4.69E-04	1.77E+02	---	2.53E-03	97.5% KM (Chebyshev)	25 of 166
Ethylbenzene	3.40E-03	1.05E-01	6.54E-04	1.00E+04	2.30E+02	5.91E-03	95% KM (Bootstrap)	47 of 83
Fluoranthene	5.95E-01	1.42E+01	1.33E-02	2.48E+04	2.40E+04	1.41E+00	97.5% KM (Chebyshev)	96 of 166
Fluorene	4.44E-02	1.11E+00	9.45E-03	2.48E+04	2.60E+04	1.07E-01	97.5% KM (Chebyshev)	41 of 166
gamma-Chlordane	9.98E-04	1.56E-02	7.10E-04	5.10E+01	---	1.84E-03	97.5% KM (Chebyshev)	12 of 166
Indeno(1,2,3-cd)pyrene	3.85E-01	6.49E+00	5.74E-02	2.37E+01	2.30E+00	6.58E-01	95% KM (Chebyshev)	104 of 166
Iron	1.43E+04	7.71E+04	2.41E+03	---	1.00E+05	1.75E+04	95% Chebyshev	166 of 166
Isopropylbenzene (cumene)	8.31E-01	6.49E+01	3.18E-04	6.25E+03	5.80E+02	5.85E+00	97.5% KM (Chebyshev)	16 of 83
Lead	5.35E+01	7.02E+02	2.48E+00	1.60E+03	8.00E+02	1.04E+02	97.5% Chebyshev	166 of 166
Lithium	1.00E+01	2.86E+01	6.50E-01	1.90E+03	2.30E+04	1.22E+01	95% Chebyshev	166 of 166
m,p-Xylene	3.43E-02	2.56E+00	5.58E-04	6.50E+03	2.10E+02	1.69E-01	95% KM (Chebyshev)	53 of 83
Manganese	2.61E+02	8.92E+02	5.93E+01	2.41E+04	3.50E+04	2.78E+02	95% Student's-t	166 of 166
Mercury	2.56E-02	8.50E-01	2.60E-03	3.26E+00	3.40E+02	4.00E-02	95% KM (BCA)	73 of 166
Methylcyclohexane	3.66E-02	2.73E+00	2.23E-04	3.29E+04	1.40E+02	1.80E-01	95% KM (Chebyshev)	57 of 83
Molybdenum	9.05E-01	1.04E+01	8.80E-02	4.51E+03	5.70E+03	1.62E+00	97.5% KM (Chebyshev)	118 of 166
Naphthalene	3.26E-01	1.92E+01	4.82E-03	1.90E+02	2.10E+02	< 2.65E-03	median	8 of 83
Nickel	1.17E+01	3.67E+01	2.70E+00	7.94E+03	2.30E+04	1.24E+01	95% Student's-t	166 of 166
n-Propylbenzene	2.37E-02	1.80E+00	2.30E-04	4.10E+03	2.40E+02	1.63E-01	97.5% KM (Chebyshev)	14 of 83
o-Xylene	1.30E-02	8.40E-01	2.23E-04	8.00E+03	2.80E+02	7.75E-02	97.5% KM (Chebyshev)	32 of 83
Phenanthrene	4.02E-01	1.26E+01	1.36E-02	1.86E+04	---	9.99E-01	97.5% KM (Chebyshev)	95 of 166
Pyrene	4.32E-01	8.47E+00	1.21E-02	1.86E+04	3.20E+04	9.71E-01	97.5% KM (Chebyshev)	98 of 166
Strontium	7.56E+01	5.91E+02	1.65E+01	4.91E+05	1.00E+05	1.01E-02	95% Chebyshev	166 of 166
Tin	8.11E-01	6.48E+00	5.20E-01	3.97E+05	---	1.20E+00	97.5% KM (Chebyshev)	40 of 166
Titanium	2.58E+01	6.45E+02	4.02E+00	1.00E+06	---	3.22E+01	95% Student's-t	166 of 166
Toluene	3.99E-03	1.92E-02	7.21E-04	2.90E+04	5.20E+02	6.04E-03	97.5% KM (Chebyshev)	69 of 83
Vanadium	1.44E+01	4.56E+01	4.73E+00	2.29E+03	1.10E+03	1.73E+01	97.5% Chebyshev	166 of 166
Xylene (total)	4.73E-02	3.40E+00	7.77E-04	6.50E+03	2.10E+02	3.04E-01	97.5% KM (Chebyshev)	53 of 83
Zinc	4.34E+02	7.65E+03	6.17E+00	2.45E+05	1.00E+05	8.15E+02	97.5% Chebyshev	166 of 166

Notes:

* Soil was collected from 0 to 4 ft. below ground surface.

+ Chemicals of interest are any chemical measured in at least one sample at a frequency of detection greater than five percent. Bolded compounds have a maximum concentration that exceeded one-tenth of the screening value.

⁽¹⁾ - TotSoil_{Comb} PCL = TCEQ Protective Concentration Level for 30 acre source area Commercial/Industrial total soil combined pathway (includes inhalation; ingestion; dermal pathways).

⁽²⁾ - From EPA's "Region 6 Human Health Medium-Specific Screening Levels 2004-2005". Industrial Outdoor Worker.

⁽³⁾ - Recommended exposure point concentration to be used based on data distribution per Pro UCL (see Appendix A of BHHRA).

TABLE 25
EXPOSURE POINT CONCENTRATIONS (mg/L)
SOUTH AREA ZONE A GROUNDWATER

Chemical of Interest*	Average		RME EPC ⁽¹⁾	Notes:	# of Detects/# of Samples
1,1,1-Trichloroethane	1.85E-04		1.40E-03	RME EPC is max detect	1 of 13
1,1-Dichloroethane	2.10E-03		1.50E-02	RME EPC is max detect	3 of 13
2-Butanone	4.30E-04		3.00E-03	RME EPC is max detect	1 of 13
2-Methylnaphthalene	7.76E-04		8.80E-03	RME EPC is max detect	1 of 13
4,4'-DDE	3.34E-06		1.00E-05	RME EPC is max detect	1 of 13
Acetophenone	3.72E-03		4.60E-02	RME EPC is max detect	1 of 13
Acrylonitrile	1.00E-03		6.50E-03	RME EPC is max detect	1 of 13
Aluminum	7.13E-01		7.52E+00	RME EPC is max detect	7 of 13
Antimony	1.02E-02		4.30E-02	RME EPC is max detect	8 of 13
Arsenic	1.61E-02		5.70E-02	RME EPC is max detect	2 of 13
Barium	9.88E-02		2.20E-01	RME EPC is max detect	13 of 13
Benzene	4.25E-04		4.20E-03	RME EPC is max detect	1 of 13
Benzo(a)pyrene	1.06E-04		6.00E-04	RME EPC is max detect	1 of 13
Benzo(b)fluoranthene	3.26E-04		2.80E-03	RME EPC is max detect	1 of 13
Benzo(g,h,i)perylene	2.11E-04		1.60E-03	RME EPC is max detect	1 of 13
Benzoic Acid	8.40E-04		1.20E-03	RME EPC is max detect	8 of 13
Bis(2-ethylhexyl)Phthalate	1.46E-03		6.00E-04	RME EPC is max detect*	2 of 13
Boron	2.67E+00		4.04E+00	RME EPC is max detect	13 of 13
Carbazole	7.00E-04		8.40E-03	RME EPC is max detect	1 of 13
Carbon Disulfide	6.50E-05		3.00E-04	RME EPC is max detect	1 of 13
Chromium	5.53E-02		1.50E-01	RME EPC is max detect	13 of 13
Chrysene	1.93E-04		6.00E-04	RME EPC is max detect	1 of 13
cis-1,2-Dichloroethene	3.27E-03		3.00E-02	RME EPC is max detect	4 of 13
Cobalt	3.06E-03		8.90E-03	RME EPC is max detect	7 of 13
Cyclohexane	6.09E-04		6.80E-03	RME EPC is max detect	1 of 13
Dibenz(a,h)anthracene	2.90E-04		2.10E-03	RME EPC is max detect	1 of 13
Di-n-octyl Phthalate	2.08E-04		7.00E-04	RME EPC is max detect	1 of 13
Endosulfan II	5.61E-06		3.10E-05	RME EPC is max detect	1 of 14
Endosulfan Sulfate	8.57E-06		1.00E-04	RME EPC is max detect	1 of 14
Endrin Ketone	3.74E-06		2.30E-05	RME EPC is max detect	1 of 13
Fluorene	1.84E-04		1.00E-03	RME EPC is max detect	1 of 13
gamma-BHC (Lindane)	7.66E-06		4.20E-05	RME EPC is max detect	2 of 14
Heptachlor Epoxide	5.07E-06		2.01E-05	RME EPC is max detect	1 of 14
Indeno(1,2,3-cd)pyrene	2.92E-04		2.40E-03	RME EPC is max detect	1 of 13
Iron	6.39E+00		2.52E+01	RME EPC is max detect	13 of 13
Isopropylbenzene (Cumene)	1.78E-04		1.60E-03	RME EPC is max detect	1 of 13
Lithium	3.61E-01		6.60E-01	RME EPC is max detect	13 of 13
m,p-Cresol	1.10E-03		8.20E-03	RME EPC is max detect	1 of 13
Manganese	4.15E+00		1.28E+01	RME EPC is max detect	13 of 13
Molybdenum	2.30E-03		2.00E-03	RME EPC is max detect	1 of 13
MTBE	3.90E-03		3.20E-02	RME EPC is max detect	3 of 13
Nickel	7.40E-03		2.20E-02	RME EPC is max detect	10 of 14
o-Cresol	4.47E-04		4.40E-03	RME EPC is max detect	1 of 13
Phenanthrene	2.12E-04		1.60E-03	RME EPC is max detect	1 of 13
Selenium	9.08E-03		3.80E-02	RME EPC is max detect	2 of 13
Silver	7.38E-03		9.46E+00	RME EPC is max detect	12 of 13
Strontium	9.03E+00		1.71E+01	RME EPC is max detect	13 of 13
Thallium	2.00E-03		7.30E-03	RME EPC is max detect	1 of 13
Titanium	5.30E-03		3.10E-02	RME EPC is max detect	7 of 13
Vanadium	8.56E-03		2.30E-02	RME EPC is max detect	7 of 13
Vinyl Chloride	1.85E-04		1.90E-03	RME EPC is max detect	1 of 13

Notes:

*The maximum detected value is sometimes lower than the average since 1/2 of the reporting limit was used as a proxy value when it was not detected and because J flagged data (estimated) were used in the risk assessment.

+ Chemicals of interest are any chemical measured in at least one sample.

⁽¹⁾ RME EPC is the reasonable maximum exposure point concentration.

TABLE 26
EXPOSURE POINT CONCENTRATIONS (mg/L)
INTRACOASTAL WATERWAY SURFACE WATER (TOTAL)

Chemical of Interest*	Average	Max Detection	Min Detection	Tot RW _{Comb} ⁽¹⁾	swRBELs Saltwater Fish Only ⁽¹⁾	RME EPC ⁽²⁾	Statistic Used	# of Detects/# of Samples
Acrylonitrile	9.38E-04	2.10E-03	2.10E-03	7.57E-02	7.30E-03	2.10E-03	RME EPC is max detect	1 of 4
Aluminum	4.05E-01	5.50E-01	2.80E-01	4.03E+02	---	5.50E-01	RME EPC is max detect	4 of 4
Barium	2.40E-02	2.60E-02	2.20E-02	6.49E+01	---	2.60E-02	RME EPC is max detect	4 of 4
Boron	4.69E+00	4.81E+00	4.60E+00	7.44E+01	---	4.81E+00	RME EPC is max detect	4 of 4
Chromium	7.98E-02	1.20E-01	7.00E-02	1.26E+02	2.22E+00	1.20E-01	RME EPC is max detect	4 of 4
Copper	6.53E-03	1.10E-02	9.10E-03	3.31E+01	---	1.10E-02	RME EPC is max detect	2 of 4
Iron	4.63E-01	5.90E-01	3.20E-01	---	---	5.90E-01	RME EPC is max detect	4 of 4
Lithium	2.53E-01	2.70E-01	2.20E-01	1.65E+01	---	2.70E-01	RME EPC is max detect	4 of 4
Manganese	4.03E-02	4.80E-02	3.30E-02	4.09E+01	1.00E-01	4.80E-02	RME EPC is max detect	4 of 4
Silver	2.80E-03	3.70E-03	2.80E-03	1.57E+00	---	3.70E-03	RME EPC is max detect	3 of 4
Strontium	7.22E+00	7.35E+00	6.95E+00	3.38E+02	---	7.35E+00	RME EPC is max detect	4 of 4
Titanium	3.90E-03	5.70E-03	2.00E-03	8.67E+04	---	5.70E-03	RME EPC is max detect	4 of 4
Vanadium	4.25E-02	6.10E-02	3.50E-02	1.08E+00	---	6.10E-02	RME EPC is max detect	4 of 4

INTRACOASTAL WATERWAY SURFACE WATER (DISSOLVED METALS)

Chemicals of Interest*	Average	Max Detection	Min Detection	Tot RW _{Comb} ⁽¹⁾	swRBELs Saltwater Fish Only ⁽¹⁾	RME EPC	Statistic Used	# of Detects/# of Samples
Aluminum	6.48E-02	4.70E-02	4.70E-02	4.03E+02	---	4.70E-02	RME EPC is max detect	1 of 4
Barium	2.63E-02	2.80E-02	2.30E-02	6.49E+01	---	2.80E-02	RME EPC is max detect	4 of 4
Boron	4.79E+00	4.99E+00	4.30E+00	7.44E+01	---	4.99E+00	RME EPC is max detect	4 of 4
Lithium	2.10E-01	2.20E-01	2.00E-01	1.65E+01	---	2.20E-01	RME EPC is max detect	4 of 4
Manganese	4.85E-03	6.00E-03	2.50E-03	4.09E+01	1.00E-01	6.00E-03	RME EPC is max detect	4 of 4
Nickel	2.63E-03	3.30E-03	1.30E-03	1.13E+00	4.60E+00	3.30E-03	RME EPC is max detect	4 of 4
Selenium	4.25E-02	6.30E-02	2.80E-02	4.13E+00	4.20E+00	6.30E-02	RME EPC is max detect	4 of 4
Strontium	8.04E+00	8.47E+00	7.36E+00	3.38E+02	---	8.47E+00	RME EPC is max detect	4 of 4

Notes:

* Chemicals of interest are any chemical measured in at least one sample.

⁽¹⁾ - TRRP 24, TCEQ, March 31, 2006.

⁽²⁾ RME EPC is the reasonable maximum exposure point concentration.

TABLE 27
EXPOSURE POINT CONCENTRATIONS (mg/L)
INTRACOASTAL WATERWAY BACKGROUND SURFACE WATER (TOTAL)

Chemical of Interest*	Average	Max Detection	Min Detection	^{SW} RW _{Comb} ⁽¹⁾	^{SW} RBELs Saltwater Fish Only ⁽¹⁾	RME EPC ⁽²⁾	Statistic Used	# of Detects/# of Samples
4,4'-DDD	3.30E-06	7.62E-06	3.60E-06	---	7.00E-06	7.62E-06	RME EPC is max detect	2 of 4
4,4'-DDT	4.93E-06	1.30E-05	1.30E-05	---	5.00E-06	1.30E-05	RME EPC is max detect	1 of 4
Acetone	1.47E-03	4.52E-03	4.52E-03	7.80E+02	---	4.52E-03	RME EPC is max detect	1 of 4
Aldrin	9.24E-06	1.10E-05	4.40E-06	---	2.80E-06	1.10E-05	RME EPC is max detect	4 of 4
Aluminum	2.44E-01	4.00E-01	2.10E-01	4.03E+02	---	4.00E-01	RME EPC is max detect	4 of 4
Barium	1.96E-02	2.00E-02	2.00E-02	6.49E+01	---	2.00E-02	RME EPC is max detect	4 of 4
Benzog(h,i)perylene	1.20E-04	2.02E-04	2.02E-04	---	---	2.02E-04	RME EPC is max detect	1 of 4
Benz(k)fluoranthene	1.73E-04	3.11E-04	3.11E-04	---	1.80E-04	3.11E-04	RME EPC is max detect	1 of 4
Bis(ethylhexyl) Phthalate	4.17E-03	1.97E-02	1.94E-02	---	2.20E-02	1.97E-02	RME EPC is max detect	2 of 4
Boron	4.38E+00	4.50E+00	4.27E+00	7.44E+01	---	4.50E+00	RME EPC is max detect	4 of 4
Chromium	7.84E-02	7.90E-02	7.80E-02	1.26E+02	2.22E+00	7.90E-02	RME EPC is max detect	4 of 4
Chromium VI	6.20E-03	1.10E-02	1.10E-02	2.43E-01	---	1.10E-02	RME EPC is max detect	1 of 4
Chrysene	1.61E-04	3.68E-04	3.68E-04	---	5.40E-03	3.68E-04	RME EPC is max detect	1 of 4
Di-n-butyl Phthalate	6.70E-04	1.42E-03	8.28E-04	4.49E+00	---	1.42E-03	RME EPC is max detect	2 of 4
Di-n-octyl Phthalate	2.65E-04	6.50E-04	6.50E-04	---	---	6.50E-04	RME EPC is max detect	1 of 4
Iron	3.40E-01	4.30E-01	3.40E-01	---	---	4.30E-01	RME EPC is max detect	4 of 4
Lithium	3.00E-01	3.40E-01	2.70E-01	1.65E+01	---	3.40E-01	RME EPC is max detect	4 of 4
Manganese	3.60E-02	4.10E-02	3.40E-02	4.09E+01	1.00E-01	4.10E-02	RME EPC is max detect	4 of 4
Methoxychlor	3.66E-06	1.40E-05	1.40E-05	7.19E-02	1.48E-03	1.40E-05	RME EPC is max detect	1 of 4
Molybdenum	2.72E-03	4.20E-03	1.80E-03	3.47E+00	---	4.20E-03	RME EPC is max detect	2 of 4
Silver	5.43E-03	5.90E-03	4.70E-03	1.57E+00	---	5.90E-03	RME EPC is max detect	4 of 4
Strontium	7.76E+00	8.31E+00	7.31E+00	3.38E+02	---	8.31E+00	RME EPC is max detect	4 of 4
Titanium	2.98E-03	4.20E-03	2.40E-03	8.67E+04	---	4.20E-03	RME EPC is max detect	4 of 4
Vanadium	4.14E-02	3.70E-02	1.10E-02	1.08E+00	---	3.70E-02	RME EPC is max detect	4 of 4

INTRACOASTAL WATERWAY BACKGROUND SURFACE WATER (DISSOLVED METALS)

Chemicals of Interest*	Average	Max Detection	Min Detection	^{SW} RW _{Comb} ⁽¹⁾	^{SW} RBELs Saltwater Fish Only ⁽¹⁾	RME EPC	Statistic Used	# of Detects/# of Samples
Barium	1.65E-02	1.90E-02	1.20E-02	6.49E+01	---	1.90E-02	RME EPC is max detect	4 of 4
Boron	3.98E+00	4.33E+00	3.04E+00	7.44E+01	---	4.33E+00	RME EPC is max detect	4 of 4
Chromium	7.38E-02	7.80E-02	6.40E-02	1.26E+02	2.22E+00	7.80E-02	RME EPC is max detect	4 of 4
Iron	5.40E-02	6.00E-02	6.00E-02	---	---	6.00E-02	RME EPC is max detect	1 of 4
Lithium	2.90E-01	3.90E-01	1.90E-01	1.65E+01	---	3.90E-01	RME EPC is max detect	4 of 4
Manganese	1.53E-02	1.80E-02	1.10E-02	4.09E+01	1.00E-01	1.80E-02	RME EPC is max detect	4 of 4
Molybdenum	3.68E-03	3.90E-03	3.90E-03	3.47E+00	---	3.90E-03	RME EPC is max detect	1 of 4
Silver	5.23E-03	5.80E-03	4.30E-03	1.57E+00	---	5.80E-03	RME EPC is max detect	4 of 4
Strontium	6.84E+00	7.46E+00	5.20E+00	3.38E+02	---	7.46E+00	RME EPC is max detect	4 of 4
Vanadium	1.23E-02	1.50E-02	9.30E-03	1.08E+00	---	1.50E-02	RME EPC is max detect	4 of 4

Notes:

* Chemicals of interest are any chemical measured in at least one sample.

(1) - TRRP 24. TCEQ, March 31, 2006.

(2) RME EPC is the reasonable maximum exposure point concentration.

TABLE 28
EXPOSURE POINT CONCENTRATIONS (mg/kg)
INTRACOASTAL WATERWAY SEDIMENT

Chemical of Interest*	Average	Max Detection	Min Detection	Tot Sed _{Comb} ⁽¹⁾		95% UCL	Statistic Used ⁽²⁾	# of Detects/# of Samples
1,2-Dichloroethane	3.02E-03	3.02E-03	3.02E-03	6.0E+02	<	3.58E-04	median	1 of 16
1,2-Diphenylhydrazine/azobenzene	3.17E-02	3.17E-02	3.17E-02	1.3E+02	<	1.10E-02	median	1 of 16
2-Methylnaphthalene	1.88E-02	1.88E-02	1.88E-02	4.9E+02	<	1.46E-02	median	1 of 16
3,3'-Dichlorobenzidine	1.51E-01	1.51E-01	1.51E-01	3.2E+01	<	6.32E-02	median	1 of 16
4,4'-DDT	6.90E-04	3.32E-03	4.81E-04	8.7E+01	<	2.03E-04	median	4 of 17
4,6-Dinitro-2-methylphenol	6.27E-02	6.27E-02	6.27E-02	3.1E+02	<	2.64E-02	median	1 of 16
Acenaphthene	2.64E-02	6.31E-02	2.39E-02	7.4E+03	<	1.35E-02	median	2 of 16
Aluminum	6.85E+03	1.25E+04	3.90E+03	1.5E+05		7.88E+03	95% Student's-t	16 of 16
Anthracene	3.00E-02	7.53E-02	2.36E-02	3.7E+04	<	1.78E-02	median	6 of 16
Antimony	2.25E+00	8.14E+00	7.40E-01	8.3E+01		4.98E+00	97.5% Chebyshev	16 of 16
Arsenic	4.03E+00	7.62E+00	2.41E+00	1.1E+02		4.64E+00	95% Student's-t	16 of 16
Atrazine (Aatrex)	8.14E-02	8.14E-02	8.14E-02	6.4E+01	<	2.59E-02	median	1 of 16
Barium	2.15E+02	3.77E+02	1.16E+02	2.3E+04		3.08E+02	97.5% Chebyshev	16 of 16
Benzo(a)anthracene	9.54E-02	3.95E-01	6.75E-02	1.6E+01	<	1.38E-02	99% Chebyshev	3 of 16
Benzo(a)pyrene	9.46E-02	4.45E-01	5.25E-02	1.6E+00	<	1.58E-02	median	6 of 16
Benzo(b)fluoranthene	1.12E-01	6.11E-01	3.24E-02	1.6E+01		3.52E-01	97.5% KM (Chebyshev)	9 of 16
Benzo(g,h,i)perylene	7.19E-02	4.42E-01	1.73E-02	3.7E+03	<	1.72E-02	median	7 of 16
Benzo(k)fluoranthene	8.18E-02	3.18E-01	4.74E-02	1.6E+02	<	2.43E-01	median	6 of 16
Beryllium	4.63E-01	8.20E-01	2.90E-01	2.7E+01		5.28E-01	95% Student's-t	16 of 16
Boron	1.65E+01	2.72E+01	1.25E+01	1.1E+05		2.47E+01	97.5% KM (Chebyshev)	10 of 16
Butyl Benzyl Phthalate	2.02E-01	2.02E-01	2.02E-01	3.1E+04	<	1.65E-02	median	1 of 16
Carbazole	2.53E-02	8.61E-02	1.95E-02	7.1E+02	<	1.38E-02	median	3 of 16
Chloroform	5.05E-03	5.27E-03	5.04E-03	7.3E+03	<	4.42E-04	median	2 of 16
Chromium	9.21E+00	1.44E+01	5.01E+00	3.6E+04		1.04E+01	95% Student's-t	16 of 16
Chrysene	8.03E-02	4.75E-01	1.37E-02	1.6E+03		2.73E-01	97.5% KM (Chebyshev)	10 of 16
Cobalt	4.39E+00	7.16E+00	3.05E+00	3.2E+04		4.88E+00	95% Student's-t	16 of 16
Copper	7.11E+00	1.26E+01	3.28E+00	2.1E+04		8.43E+00	95% Student's-t	16 of 16
Cyclohexane	1.92E-03	1.92E-03	1.92E-03	1.0E+06	<	3.29E-03	median	1 of 16
Dibenz(a,h)anthracene	7.12E-02	2.35E-01	5.11E-02	1.6E+00	<	1.57E-02	median	6 of 16
Dibenzofuran	2.70E-02	3.05E-02	2.68E-02	6.1E+02	<	1.92E-02	median	2 of 16
Diethyl Phthalate	3.89E-02	3.89E-02	3.89E-02	1.2E+05	<	2.24E-02	median	1 of 16
Di-n-octyl Phthalate	2.58E-02	1.92E-01	1.47E-02	3.1E+03	<	1.13E-02	median	2 of 16
Fluoranthene	1.20E-01	8.04E-01	2.22E-02	4.9E+03		4.39E-01	97.5% KM (Chebyshev)	8 of 16
Fluorene	1.62E-02	4.60E-02	1.24E-02	4.9E+03	<	1.38E-02	median	4 of 16
gamma-Chlordane	6.54E-04	8.26E-04	6.38E-04	4.1E+01	<	3.91E-04	median	4 of 16
Hexachlorobenzene	3.19E-02	3.19E-02	3.19E-02	8.9E+00	<	1.62E-02	median	1 of 16
Indeno(1,2,3-cd)pyrene	9.99E-02	4.05E-01	5.56E-02	1.6E+01	<	2.53E-02	median	6 of 16
Iron	1.34E+04	2.82E+04	6.75E+03	---		2.20E+04	97.5% Chebyshev	16 of 16
Isopropylbenzene (cumene)	4.79E-03	7.04E-03	4.64E-03	7.3E+04	<	4.80E-04	median	2 of 16
Lead	1.16E+01	3.23E+01	5.00E+00	5.0E+02		2.27E+01	97.5% Chebyshev	16 of 16
Lithium	1.05E+01	2.00E+01	6.40E+00	1.1E+04		1.21E+01	95% Student's-t	16 of 16
Manganese	2.83E+02	4.74E+02	1.92E+02	1.4E+04		3.22E+02	95% Student's-t	16 of 16
Mercury	2.01E-02	3.60E-02	1.10E-02	3.4E+01		2.33E-02	95% Student's-t	16 of 16
Methylcyclohexane	3.70E-03	3.70E-03	3.70E-03	1.0E+06	<	1.70E-03	median	1 of 16
Molybdenum	6.67E-01	5.66E+00	1.40E-01	1.8E+03		2.15E+00	95% Chebyshev	16 of 16
Nickel	9.59E+00	1.67E+01	5.80E+00	1.4E+03		1.08E+01	95% Student's-t	16 of 16
n-Nitrosodiphenylamine	4.34E-02	4.34E-02	4.34E-02	9.0E+02	<	1.50E-02	median	1 of 16
Phenanthrene	8.58E-02	5.08E-01	3.11E-02	3.7E+03		2.80E-01	97.5% KM (Chebyshev)	8 of 16
Pyrene	1.33E-01	8.62E-01	1.76E-02	3.7E+03		4.82E-01	97.5% KM (Chebyshev)	10 of 16
Silver	3.35E-01	5.40E-01	3.00E-01	3.5E+02	<	8.95E-02	median	6 of 16
Strontium	4.49E+01	8.17E+01	3.28E+01	1.5E+05		5.12E+01	95% Student's-t	16 of 16
Titanium	2.56E+01	3.66E+01	1.91E+01	1.0E+06		2.78E+01	95% Student's-t	16 of 16
Toluene	5.81E-03	5.81E-03	5.81E-03	5.9E+04	<	1.73E-03	median	1 of 16
Vanadium	1.39E+01	2.12E+01	9.06E+00	3.3E+02		1.54E+01	95% Student's-t	16 of 16
Zinc	4.54E+01	9.26E+01	1.80E+01	7.6E+04		5.41E+01	95% Student's-t	16 of 16

Notes:

* Chemicals of interest are any chemical measured in at least one sample at a frequency of detection greater than five percent. Bolded compounds have a maximum concentration that exceeded one-tenth of the screening value.

⁽¹⁾ - From Tier 1 Sediment PCLs. TCEQ, March 31, 2006.

⁽²⁾ - Recommended exposure point concentration to be used based on data distribution per Pro UCL (see Appendix A of BHHRA).

TABLE 29
EXPOSURE POINT CONCENTRATION (mg/kg)
INTRACOASTAL WATERWAY BACKGROUND SEDIMENT

Chemical of Interest*	Average	Max Detection	Min Detection	^{Tot} Sed _{Comb} ⁽¹⁾		95% UCL	Statistic Used ⁽²⁾	# of Detects/# of Samples
1,2,4-Trimethylbenzene	3.91E-03	3.91E-03	3.91E-03	3.7E+04	<	7.24E-04	median	1 of 9
1,4-Dichlorobenzene	4.11E-03	4.11E-03	4.11E-03	2.3E+03	<	1.54E-03	median	1 of 9
2-Butanone	2.08E-03	2.16E-03	2.00E-03	4.4E+05	<	2.00E-03	median	2 of 9
4,4'-DDT	5.70E-04	5.70E-04	5.70E-04	8.7E+01	<	2.10E-04	median	1 of 9
Aluminum	1.22E+04	2.18E+04	4.73E+03	1.5E+05		1.65E+04	95% Student's-t	9 of 9
Antimony	4.02E+00	7.33E+00	1.68E+00	8.3E+01		5.40E+00	95% Student's-t	9 of 9
Arsenic	5.81E+00	9.62E+00	2.36E+00	1.1E+02		7.74E+00	95% Student's-t	9 of 9
Barium	209.7.2	2.80E+02	1.11E+02	2.3E+04		2.39E+02	95% Student's-t	9 of 9
Benz(b)fluoranthene	3.69E-02	3.69E-02	3.69E-02	1.6E+01	<	1.09E-02	median	1 of 9
Beryllium	7.66E-01	1.32E+00	3.20E-01	2.7E+01		1.02E+00	95% Student's-t	9 of 9
Boron	2.76E+01	4.79E+01	1.33E+01	1.1E+05		3.56E+01	95% Student's-t	9 of 9
Carbon Disulfide	5.91E-03	8.41E-03	3.41E-03	7.3E+04	<	8.40E-04	median	2 of 9
Chromium	1.28E+01	2.25E+01	5.81E+00	3.6E+04		1.69E+01	95% Student's-t	9 of 9
cis-1,2-Dichloroethene	2.84E-02	2.84E-02	2.84E-02	7.3E+03	<	4.61E-04	median	1 of 9
Cobalt	6.70E+00	1.18E+01	3.32E+00	3.2E+04		8.66E+00	95% Student's-t	9 of 9
Copper	8.14E+00	1.68E+01	2.68E+00	2.1E+04		1.13E+01	95% Student's-t	9 of 9
Iron	1.65E+04	2.79E+04	7.44E+03	---		2.15E+04	95% Student's-t	9 of 9
Lead	9.59E+00	1.45E+01	5.34E+00	5.0E+02		1.18E+01	95% Student's-t	9 of 9
Lithium	2.14E+01	4.46E+01	7.29E+00	1.1E+04		3.03E+01	95% Student's-t	9 of 9
Manganese	3.31E+02	4.42E+02	2.12E+02	1.4E+04		3.86E+02	95% Student's-t	9 of 9
Mercury	1.76E-02	5.00E-02	6.50E-03	3.4E+01		3.68E-02	95% Chebyshev	9 of 9
Molybdenum	2.41E-01	3.50E-01	1.60E-01	1.8E+03		2.83E-01	95% Student's-t	9 of 9
Nickel	1.49E+01	2.73E+01	6.31E+00	1.4E+03		1.99E+01	95% Student's-t	9 of 9
Strontium	5.92E+01	8.74E+01	3.48E+01	1.5E+05		7.28E+01	95% Student's-t	9 of 9
Titanium	3.18E+01	5.45E+01	2.11E+01	1.0E+06		3.83E+01	95% Student's-t	9 of 9
Trichloroethene	1.59E-02	1.59E-02	1.59E-02	4.4E+03	<	6.47E-04	median	1 of 9
Vanadium	2.02E+01	3.42E+01	1.02E+01	3.3E+02		2.59E+01	95% Student's-t	9 of 9
Xylene	3.35E-03	3.35E-03	3.35E-03	1.5E+05	<	2.09E-03	median	1 of 9
Zinc	3.60E+01	5.41E+01	1.93E+01	7.6E+04		4.45E+01	95% Student's-t	9 of 9

Notes:

* Chemicals of interest are any chemical measured in at least one sample at a frequency of detection greater than five percent. Bolded compounds have a maximum concentration that exceeded one-tenth of the screening value.

⁽¹⁾ - From Tier 1 Sediment PCLs. TCEQ, March 31, 2006.

⁽²⁾ - Recommended exposure point concentration to be used based on data distribution per Pro UCL (see Appendix A of BHHRA). When the compound was not detected in a given sample, one-half of the sample detection limit was used as the proxy concentration for that sample.

TABLE 30
EXPOSURE POINT CONCENTRATIONS (mg/kg)
NORTH AREA SURFACE SOIL*

Chemical of Interest ⁽¹⁾	Average	Max Detection	Min Detection	Total Soil Comb ⁽¹⁾	EPA Region 6 Soil Screening Criteria ⁽²⁾	95% UCL	Statistic Used ⁽³⁾	# of Detects/# of Samples	
2-Methylnaphthalene	1.46E-02	5.30E-02	1.00E-02	2.48E+03	---	<	1.18E-02	median 3 of 18	
4,4'-DDE	2.87E-03	1.49E-02	2.16E-03	7.32E+01	7.80E+00	<	4.24E-04	median 2 of 18	
4,4'-DDT	1.50E-03	1.08E-02	5.97E-04	6.84E+01	7.80E+00	<	5.45E-04	median 7 of 18	
Acenaphthene	2.86E-02	1.57E-01	2.10E-02	3.72E+04	3.30E+04	<	1.10E-02	median 2 of 18	
Acenaphthylene	5.55E-02	5.55E-02	5.55E-02	3.72E+04	---	<	1.21E-02	median 1 of 18	
Aluminum	1.07E+04	1.68E+04	1.81E+03	5.70E+05	1.00E+05	1.22E+04	95% Student's-t	18 of 18	
Anthracene	2.69E-02	2.64E-01	8.87E-03	1.86E+05	1.00E+05	<	1.21E-02	median 4 of 18	
Antimony	2.52E+00	8.09E+00	1.66E+00	3.06E+02	4.50E+02	4.95E+00	97.5% KM (Chebyshev)	9 of 18	
Aroclor-1254	1.22E-02	1.22E-02	1.22E-02	7.10E+00	8.30E-01	<	4.29E-03	median 1 of 18	
Arsenic	2.53E+00	5.69E+00	5.40E-01	1.96E+02	1.80E+00	4.22E+00	97.5% KM (Chebyshev)	17 of 18	
Barium	1.45E+02	4.76E+02	4.61E+01	8.90E+04	7.90E+04	2.64E+02	95% Chebyshev	18 of 18	
Benz(a)anthracene	1.18E+00	1.18E+00	1.18E+00	2.36E+01	2.30E+00	<	1.10E-02	median 1 of 18	
Benz(a)pyrene	1.19E-01	1.42E+00	1.35E-02	2.37E+00	2.30E-01	<	1.16E-02	median 7 of 18	
Benz(b)fluoranthene	1.69E-01	1.62E+00	4.87E-02	2.36E+01	2.30E+00	3.73E-01	95% KM (BCA)	8 of 18	
Benz(g,h,i)perylene	1.40E-01	1.28E+00	2.37E-02	1.86E+04	---	5.92E-01	97.5% KM (Chebyshev)	10 of 18	
Benz(k)fluoranthene	1.13E-01	7.99E-01	1.10E-02	2.37E+02	2.30E+01	<	1.75E-02	median 4 of 18	
Beryllium	7.11E-01	2.88E+00	6.60E-02	2.47E+02	2.20E+03	1.60E+00	97.5% KM (Chebyshev)	17 of 18	
Bis(2-ethylhexyl)phthalate	4.45E-02	2.39E-01	1.22E-02	5.63E+02	1.40E+02	<	5.46E-02	median 6 of 18	
Boron	8.74E+00	3.92E+01	3.15E+00	1.92E+05	1.00E+05	2.21E+01	97.5% KM (Chebyshev)	13 of 18	
Butyl Benzyl Phthalate	1.51E-01	1.51E-01	1.51E-01	1.00E+04	2.40E+02	<	1.36E-02	median 1 of 18	
Cadmium	3.58E-01	8.00E-01	2.80E-01	8.52E+02	5.60E+02	5.72E-01	97.5% KM (Chebyshev)	8 of 18	
Carbazole	2.00E-02	1.28E-01	1.30E-02	9.54E+02	9.60E+01	<	1.11E-02	median 4 of 18	
Chromium	2.03E+01	1.28E+02	7.90E+00	5.71E+04	5.00E+02	4.86E+01	95% Chebyshev	18 of 18	
Chrysene	1.05E-01	1.30E+00	1.10E-02	2.36E+03	2.30E+02	<	1.03E-02	median 7 of 18	
Cobalt	5.79E+00	7.87E+00	2.81E+00	2.70E+02	2.10E+03	6.41E+00	95% Student's-t	18 of 18	
Copper	2.41E+01	2.00E+02	5.90E+00	3.69E+04	4.20E+04	7.00E+01	95% Chebyshev	18 of 18	
Dibenz(a,h)anthracene	7.69E-02	4.04E-01	4.50E-02	2.37E+00	2.30E-01	<	1.10E-02	median 4 of 18	
Dibenzofuran	8.62E-02	8.62E-02	8.62E-02	2.73E+03	1.70E+03	<	1.52E-02	median 1 of 18	
Dieldrin	5.45E-03	5.45E-03	5.45E-03	1.14E+00	1.20E-01	<	1.83E-04	median 1 of 18	
Diethyl Phthalate	1.10E-02	1.10E-02	1.10E-02	2.04E+03	1.00E+05	<	1.85E-02	median 1 of 18	
Di-n-butyl Phthalate	1.00E-02	1.00E-02	1.00E-02	1.62E+04	6.80E+04	<	3.10E-02	median 1 of 18	
Di-n-octyl Phthalate	2.14E-02	1.23E-01	1.54E-02	1.30E+04	2.70E+04	<	9.50E-03	median 2 of 18	
Endrin	1.49E-03	1.49E-03	1.49E-03	1.27E+02	2.10E+02	<	2.22E-04	median 1 of 18	
Endrin Ketone	9.66E-03	9.66E-03	9.66E-03	1.77E+02	---	<	5.48E-04	median 1 of 18	
Fluoranthene	1.68E-01	2.19E+00	2.14E-02	2.48E+04	2.40E+04	<	1.28E-02	median 6 of 18	
Fluorene	2.50E-02	1.41E-01	1.70E-02	2.48E+04	2.60E+04	<	1.09E-02	median 3 of 18	
Indeno(1,2,3-cd)pyrene	1.55E-01	1.51E+00	2.00E-02	2.37E+01	2.30E+00	6.82E-01	97.5% KM (Chebyshev)	9 of 18	
Iron	1.95E+04	1.02E+05	8.45E+03	--	1.00E+05	4.11E+04	95% Chebyshev	18 of 18	
Lead	5.77E+01	4.71E+02	8.22E+00	1.60E+03	8.00E+02	3.18E+02	99% Chebyshev	18 of 18	
Lithium	1.66E+01	2.66E+01	2.59E+00	1.90E+03	2.30E+04	1.87E+01	95% Student's-t	18 of 18	
Manganese	3.70E+02	1.21E+03	8.23E+01	2.41E+04	3.50E+04	7.34E+02	97.5% KM (Chebyshev)	18 of 18	
Mercury	1.38E-02	6.40E-02	6.00E-03	3.26E+00	3.40E+02	3.75E-02	97.5% KM (Chebyshev)	8 of 18	
Molybdenum	9.66E-01	1.07E+01	8.50E-02	4.51E+03	5.70E+03	4.71E+00	97.5% KM (Chebyshev)	11 of 18	
Nickel	1.70E+01	5.17E+01	1.17E+01	7.94E+03	2.30E+04	2.08E+01	95% Student's-t	18 of 18	
Phenanthrene	1.15E-01	1.34E+00	1.80E-02	1.86E+04	---	<	1.42E-02	median 7 of 18	
Pyrene	3.86E-01	1.87E+00	1.49E-02	1.86E+04	3.20E+04	2.03E+00	97.5% KM (Chebyshev)	8 of 18	
Silver	1.10E-01	4.10E-01	9.20E-02	1.71E+03	5.70E+03	<	6.00E-02	median 2 of 18	
Strontium	5.73E+01	9.36E+01	2.66E+01	4.91E+05	1.00E+05	6.54E+01	95% Student's-t	18 of 18	
Thallium	6.30E-01	6.30E-01	6.30E-01	7.80E+01	---	<	1.00E-01	median 1 of 18	
Tin	7.06E-01	3.67E+00	6.80E-01	3.97E+05	---	<	5.90E-01	median 4 of 18	
Titanium	2.07E+01	5.59E+01	3.41E+00	1.00E+06	---	<	3.78E+01	97.5% KM (Chebyshev)	18 of 18
Vanadium	1.97E+01	4.58E+01	7.85E+00	2.29E+03	1.10E+03	2.34E+01	95% Student's-t	18 of 18	
Zinc	4.18E+02	5.64E+03	2.95E+01	2.45E+05	1.00E+05	3.49E+03	99% Chebyshev	18 of 18	

Notes:

* Surface soil was collected from 0 to 0.5 ft. below ground surface.

⁽¹⁾ Chemicals of interest are any chemical measured in at least one sample at a frequency of detection greater than five percent. Bolded compounds have a maximum concentration that exceeded one-tenth of the screening value.

⁽²⁾ Total Soil Comb PCL = TCEQ Protective Concentration Level for 30 acre source area Commercial/Industrial total soil combined pathway (includes inhalation; ingestion; dermal pathways).

⁽³⁾ From EPA's "Region 6 Human Health Medium-Specific Screening Levels 2004-2005". Industrial Outdoor Worker.

⁽³⁾ Recommended exposure point concentration to be used based on data distribution per UCL (see Appendix A of BHHRA).

TABLE 31
EXPOSURE POINT CONCENTRATIONS (mg/kg)
NORTH AREA SOIL+

Chemical of Interest ^{**}	Average	Max Detection	Min Detection	TotSoil _{Comb} ⁽¹⁾	EPA Region 6 Soil Screening Criteria ⁽²⁾		95% UCL	Statistic Used ⁽³⁾	# of Detects/# of Samples
1,1-Dichloroethane	2.67E-02	5.18E-01	1.61E-03	4.30E+03	2.30E+03	<	1.75E-04	median	3 of 19
1,1-Dichloroethene	1.73E-02	3.13E-01	1.78E-03	3.50E+03	4.70E+02	<	3.95E-04	median	2 of 19
1,2-Dichloroethane	1.95E-02	1.77E-01	2.31E-03	1.15E+01	8.40E-01	<	1.27E-04	median	4 of 19
2-Butanone	1.32E-02	2.08E-01	1.70E-03	7.26E+04	3.40E+04		7.87E-02	97.5% KM (Chebyshev)	11 of 19
2-Methylnaphthalene	4.05E-02	5.30E-02	1.00E-02	2.48E+03	---	<	1.19E-02	median	4 of 38
4,4'-DDE	2.50E-03	1.49E-02	2.16E-03	7.32E+01	7.80E+00	<	4.28E-04	median	2 of 38
4,4'-DDT	1.16E-02	1.08E-02	5.97E-04	6.84E+01	7.80E+00	<	7.94E-02	97.5% KM (Chebyshev)	7 of 38
Acenaphthene	1.99E-02	1.57E-01	2.10E-02	3.72E+04	3.30E+04	<	1.11E-02	median	4 of 38
Aluminum	1.23E+04	1.83E+04	1.81E+03	5.70E+05	1.00E+05		1.33E+04	95% Student's-t	38 of 38
Antracene	2.90E-02	2.64E-01	8.87E-03	1.86E+05	1.00E+05		8.96E-02	97.5% KM (Chebyshev)	6 of 38
Antimony	1.45E+00	8.09E+00	1.66E+00	3.06E+02	4.50E+02		2.45E+00	95% KM (Bootstrap)	16 of 38
Aroclor-1254	1.81E-01	9.38E-02	1.22E-02	7.10E+00	8.30E-01	<	4.30E-03	median	2 of 38
Arsenic	2.44E+00	5.69E+00	5.40E-01	1.96E+02	1.80E+00		3.82E+00	97.5% KM (Chebyshev)	32 of 38
Barium	1.41E+02	3.62E+02	4.61E+01	8.90E+04	7.90E+04		2.34E+02	97.5% Chebyshev	38 of 38
Benzene	2.92E-03	6.32E-03	1.38E-03	1.11E+02	1.60E+00		5.39E-03	97.5% KM (Chebyshev)	12 of 18
Benzo(a)anthracene	1.09E-01	1.18E+00	3.83E-02	2.36E+01	2.30E+00	<	1.11E-02	median	4 of 38
Benzo(a)pyrene	9.37E-02	1.42E+00	1.35E-02	2.37E+00	2.30E-01		3.78E-01	97.5% KM (Chebyshev)	10 of 38
Benzo(b)fluoranthene	1.44E-01	1.62E+00	4.87E-02	2.36E+01	2.30E+00		2.52E-01	95% KM (Bootstrap)	11 of 38
Benzo(g,h,i)perylene	1.03E-01	1.28E+00	2.37E-02	1.86E+04	---		3.42E-01	97.5% KM (Chebyshev)	14 of 38
Benzo(k)fluoranthene	1.07E-01	7.99E-01	6.80E-02	2.37E+02	2.30E+01	<	1.72E-02	median	6 of 38
Beryllium	7.15E-01	2.88E+00	6.60E-02	2.47E+02	2.20E+03		1.18E+00	97.5% KM (Chebyshev)	35 of 38
Bis(2-ethylhexyl)phthalate	4.12E-02	2.39E-01	1.22E-02	5.63E+02	1.40E+02		9.96E-02	97.5% KM (Chebyshev)	11 of 38
Boron	7.64E+00	3.92E+01	3.14E+00	1.92E+05	1.00E+05		1.71E+01	97.5% KM (Chebyshev)	26 of 38
Bromoform	1.14E-02	1.80E-02	1.10E-02	6.04E+02	2.40E+02	<	1.86E-04	median	2 of 19
Butyl Benzyl Phthalate	5.66E-02	1.51E-01	5.40E-02	1.00E+04	2.40E+02	<	1.36E-02	median	2 of 38
Cadmium	3.63E-01	8.00E-01	2.80E-01	8.52E+02	5.60E+02		5.19E-01	97.5% KM (Chebyshev)	15 of 38
Carbazole	1.74E-02	1.28E-01	1.08E-02	9.54E+02	9.60E+01	<	1.10E-02	median	7 of 38
Carbon Disulfide	8.64E-03	2.84E-02	7.57E-03	7.19E+03	7.20E+02	<	1.19E-04	median	3 of 19
Chromium	1.83E+01	1.28E+02	7.76E+00	5.70E+04	5.00E+02		3.21E+01	95% Chebyshev	38 of 38
Chrysene	1.03E-01	1.30E+00	1.04E-02	2.40E+03	2.30E+02		3.84E-01	97.5% KM (Chebyshev)	11 of 38
cis-1,2-Dichloroethene	6.61E-02	9.99E-01	1.95E-02	4.70E+03	1.60E+02	<	1.38E-04	median	2 of 19
Cobalt	6.52E+00	1.03E+01	2.81E+00	2.70E+02	2.10E+03		7.04E+00	95% Student's-t	38 of 38
Copper	6.56E+01	2.00E+02	4.59E+00	3.70E+04	4.20E+04		5.12E+02	99% Chebyshev	38 of 38
Cyclohexane	1.13E-03	1.85E-03	9.81E-04	4.20E+04	6.80E+03	<	1.25E-03	median	5 of 19
Dibenz(a,h)anthracene	6.88E-02	4.04E-01	4.50E-02	2.40E+00	2.30E-01	<	1.08E-02	median	7 of 38
Dibenzofuran	1.96E-02	8.62E-02	1.50E-02	2.70E+03	1.70E+04	<	1.50E-02	median	2 of 38
Diethyl Phthalate	1.01E-02	1.10E-02	9.92E-03	2.04E+03	1.00E+05	<	1.85E-02	median	2 of 38
Di-n-butyl Phthalate	1.05E-02	1.50E-02	1.00E-02	1.62E+04	6.80E+04	<	3.07E-02	median	2 of 38
Di-n-octyl Phthalate	1.90E-02	1.23E-01	1.54E-02	1.30E+04	2.70E+04	<	9.52E-03	median	3 of 38
Ethylbenzene	2.69E-03	5.02E-03	1.14E-03	1.00E+04	2.30E+02	<	1.14E-03	median	5 of 19
Fluoranthene	1.44E-01	2.19E+00	2.14E-02	2.48E+04	2.40E+04	<	6.24E-01	97.5% KM (Chebyshev)	9 of 38
Fluorene	5.27E-02	1.41E-01	1.70E-02	2.48E+04	2.60E+04	<	3.92E-04	median	4 of 38
Indeno(1,2,3-cd)pyrene	1.15E-01	1.51E+00	2.00E-02	2.37E+01	2.30E+00		3.96E-01	97.5% KM (Chebyshev)	13 of 38
Iron	2.09E+04	1.02E+05	7.12E+03		1.00E+05		3.69E+04	95% Chebyshev	38 of 38
Lead	5.30E+01	5.83E+00	6.30E+02		1.60E+03		2.48E+02	99% Chebyshev	34 of 38
Lithium	1.92E+01	3.22E+01	2.59E+00	1.90E+03	2.30E+04		2.08E+01	95% Student's-t	36 of 38
m,p-xylene	1.32E-03	1.39E-03	1.32E-03	6.50E+03	2.10E+02	<	4.22E-04	median	2 of 19
Manganese	3.87E+02	1.21E+03	8.23E+01	2.41E+04	3.50E+04		6.39E+02	97.5% Chebyshev	38 of 38
Mercury	1.43E-02	1.70E-01	3.40E-03	3.26E+00	3.40E+02		4.38E-02	97.5% KM (Chebyshev)	15 of 38
Methylcyclohexane	1.76E-03	2.78E-03	1.50E-03	3.29E+04	1.40E+02	<	1.54E-03	median	6 of 19
Molybdenum	1.40E-01	1.07E+01	8.50E-02	4.51E+03	5.70E+03		2.49E+00	97.5% KM (Chebyshev)	21 of 38
Naphthalene	3.24E+00	1.48E-01	1.30E-03	1.90E+02	2.10E+02	<	3.70E-03	median	6 of 19
Nickel	1.80E+01	5.17E+01	9.74E+00	7.94E+03	2.30E+04		2.01E+01	95% Student's-t	38 of 38
Phenanthrene	1.50E-01	1.83E+00	1.80E-02	1.86E+04	---		5.70E-01	97.5% KM (Chebyshev)	12 of 38
Pyrene	2.62E-01	4.64E+00	1.49E-02	1.86E+04	3.20E+04		1.12E+00	97.5% KM (Chebyshev)	14 of 38
Silver	1.05E-01	4.10E-01	9.20E-02	1.71E+03	5.70E+03	<	5.90E-02	median	3 of 38
Strontium	5.64E+01	9.62E+01	2.21E+01	4.91E+05	1.00E+05		6.20E+01	95% Student's-t	38 of 38
Tetrachloroethene	1.26E-02	2.23E-01	1.35E-03	3.30E+02	1.70E+00	<	2.11E-04	median	3 of 19
Tin	5.34E+00	3.67E+00	6.80E-01	3.97E+05	---	<	5.70E-01	median	5 of 38
Titanium	2.33E+01	5.70E+01	3.41E+00	1.00E+06	---		4.03E+01	97.5% Chebyshev	38 of 38
Toluene	3.24E-03	1.22E-02	1.34E-03	2.90E+04	5.20E+02		8.15E-03	97.5% KM (Chebyshev)	8 of 19
Vanadium	2.10E+01	4.58E+01	7.85E+00	2.29E+03	1.10E+03		2.33E+01	95% Student's-t	38 of 38
Xylene (total)	1.78E-01	1.76E+00	1.39E-03	6.50E+03	2.10E+02		8.58E-01	97.5% KM (Chebyshev)	8 of 19
Zinc	2.83E+02	5.64E+03	2.11E+01	2.45E+05	1.00E+05		1.78E+03	99% Chebyshev	38 of 38

Notes:

+ Soil was collected from 0 to 4 ft. below ground surface.

** Chemicals of interest are any chemical measured in at least one sample at a frequency of detection greater than five percent. Bolded compounds have a maximum concentration that exceeded one-tenth of the screening value.

(1) $\text{TotSoil}_{\text{Comb}}$ PCL = TCEQ Protective Concentration Level for 30 acre source area Commercial/Industrial total soil combined pathway (includes inhalation; ingestion; dermal pathways).

(2) - From EPA's "Region 6 Human Health Medium-Specific Screening Levels 2004-2005". Industrial Outdoor Worker.

(3) - Recommended exposure point concentration to be used based on data distribution per Pro UCL (see Appendix A of BHHRA).

TABLE 32
EXPOSURE POINT CONCENTRATIONS (mg/L)
NORTH AREA ZONE A GROUNDWATER

Chemical of Interest*	Average	RME EPC ⁽¹⁾	Notes:	# of Detects/# of Samples
1,1,1-Trichloroethane	1.48E+01	1.56E+02	RME EPC is max detect	5 of 16
1,1-Dichloroethane	2.80E+00	3.15E+01	RME EPC is max detect	5 of 12
1,1-Dichloroethene	3.46E+00	2.92E+01	RME EPC is max detect	6 of 16
1,2,3-Trichloropropane	6.17E+00	4.43E+01	RME EPC is max detect	5 of 16
1,2,4-Trimethylbenzene	3.80E-02	4.20E-02	RME EPC is max detect	1 of 12
1,2-Dichloroethane	2.42E+01	3.28E+02	RME EPC is max detect	6 of 16
1,2-Dichloropropane	4.90E-01	3.45E+00	RME EPC is max detect	4 of 16
2-Methylnaphthalene	2.70E-03	1.60E-02	RME EPC is max detect	2 of 12
4,4'-DDD	2.48E-06	1.90E-05	RME EPC is max detect	1 of 12
4,4'-DDE	2.14E-05	2.70E-04	RME EPC is max detect	2 of 12
4-Chloroaniline	1.50E-03	1.30E-02	RME EPC is max detect	1 of 12
4-Isopropyltoluene	2.30E-02	2.00E-03	RME EPC is max detect*	1 of 12
Acenaphthene	9.00E-04	8.60E-03	RME EPC is max detect	1 of 12
Acetone	2.81E-01	1.15E-01	RME EPC is max detect*	1 of 12
Acetophenone	6.80E-03	7.40E-02	RME EPC is max detect	1 of 12
alpha-BHC	1.96E-05	2.00E-04	RME EPC is max detect	1 of 12
Aluminum	8.18E-02	2.60E-01	RME EPC is max detect	5 of 12
Aniline	1.30E-03	1.10E-02	RME EPC is max detect	1 of 12
Anthracene	4.30E-04	1.40E-03	RME EPC is max detect	2 of 12
Antimony	1.98E-02	4.30E-02	RME EPC is max detect	11 of 12
Arsenic	1.13E-02	2.80E-02	RME EPC is max detect	2 of 12
Barium	1.64E-01	1.38E+00	RME EPC is max detect	12 of 12
Benzene	1.02E+00	8.24E+00	RME EPC is max detect	7 of 16
Benz(o)bifluoranthene	3.23E-04	1.40E-03	RME EPC is max detect	1 of 12
Benzo(g,h,i)perylene	2.89E-04	1.50E-03	RME EPC is max detect	1 of 12
Benzoic Acid	1.10E-03	1.40E-03	RME EPC is max detect	5 of 12
beta-BHC	1.09E-05	8.30E-05	RME EPC is max detect	2 of 12
Bis(2-ethylhexyl)Phthalate	3.70E-03	6.00E-04	RME EPC is max detect	1 of 12
Boron	2.20E+00	3.44E+00	RME EPC is max detect	12 of 12
Carbazole	2.20E-03	7.70E-03	RME EPC is max detect	3 of 12
Carbon Tetrachloride	5.60E-01	7.58E+00	RME EPC is max detect	1 of 16
Chromium	9.10E-02	1.60E-01	RME EPC is max detect	12 of 12
cis-1,2-Dichloroethene	8.96E+00	1.24E+02	RME EPC is max detect	6 of 16
Cobalt	2.60E-03	1.60E-02	RME EPC is max detect	3 of 12
delta-BHC	5.97E-06	4.10E-05	RME EPC is max detect	2 of 12
Dibenz(a,h)anthracene	4.87E-04	2.90E-03	RME EPC is max detect	1 of 12
Dibenzofuran	6.01E-04	4.90E-03	RME EPC is max detect	1 of 12
Dieldrin	5.01E-06	2.64E-05	RME EPC is max detect	1 of 16
Endosulfan II	1.29E-05	1.20E-04	RME EPC is max detect	6 of 17
Endosulfan Sulfate	2.46E-06	1.56E-05	RME EPC is max detect	1 of 12
Endrin Aldehyde	1.31E-05	1.30E-04	RME EPC is max detect	1 of 12
Ethylbenzene	9.69E-02	7.40E-01	RME EPC is max detect	1 of 13
Fluorene	8.51E-04	6.10E-03	RME EPC is max detect	3 of 12
gamma-BHC (Lindane)	1.25E-04	1.50E-03	RME EPC is max detect	3 of 16
Heptachlor Epoxide	5.44E-06	2.50E-05	RME EPC is max detect	1 of 12
Indeno(1,2,3-cd)pyrene	4.73E-04	3.30E-03	RME EPC is max detect	1 of 12
Iron	1.31E+01	3.66E+01	RME EPC is max detect	12 of 12
Isopropylbenzene (Cumene)	2.80E-02	3.80E-02	RME EPC is max detect*	2 of 12
Lithium	3.19E-01	6.70E-01	RME EPC is max detect	12 of 12
m,p-Cresol	2.78E-03	1.20E-02	RME EPC is max detect	3 of 12
m,p-Xylene	6.85E-02	1.68E-01	RME EPC is max detect	1 of 12
Manganese	7.74E+00	2.69E+01	RME EPC is max detect	12 of 12
Methylene Chloride	9.57E+01	1.23E+03	RME EPC is max detect	4 of 16
Molybdenum	7.20E-03	5.50E-02	RME EPC is max detect	1 of 12
Naphthalene	7.83E-02	3.22E-01	RME EPC is max detect	1 of 13
Nickel	1.99E-02	1.40E-01	RME EPC is max detect	7 of 14
n-Propylbenzene	3.60E-02	3.10E-02	RME EPC is max detect*	1 of 12
o-Cresol	1.40E-03	8.10E-03	RME EPC is max detect	2 of 12
o-Xylene	4.62E-02	4.40E-02	RME EPC is max detect*	1 of 12
Phenanthrene	8.31E-04	6.40E-03	RME EPC is max detect	2 of 13
Pyrene	2.23E-04	5.00E-04	RME EPC is max detect	1 of 13
Silver	9.14E-03	1.70E-02	RME EPC is max detect	12 of 12
Strontium	1.10E+01	1.88E+01	RME EPC is max detect	12 of 12
Styrene	2.60E-02	2.50E-03	RME EPC is max detect*	1 of 12
Tetrachloroethene	1.95E+00	2.05E+01	RME EPC is max detect	4 of 16
Thallium	4.60E-03	3.00E-02	RME EPC is max detect	2 of 12
Titanium	1.20E-03	3.30E-03	RME EPC is max detect	3 of 12
Toluene	3.35E-01	4.05E+00	RME EPC is max detect	4 of 16
Trichloroethene	1.15E+01	8.40E+01	RME EPC is max detect	7 of 16
Vanadium	8.40E-03	2.40E-02	RME EPC is max detect	6 of 12
Vinyl Chloride	5.02E-01	5.09E+00	RME EPC is max detect	3 of 16
Xylene (total)	1.15E-01	2.12E-01	RME EPC is max detect	1 of 12

Notes:

*The maximum detected value is sometimes lower than the average since 1/2 of the reporting limit was used as a proxy value when it was not detected and because J flag data were used in the risk assessment.

+ Chemicals of interest are any chemical measured in at least one sample.

⁽¹⁾ RME EPC is the reasonable maximum exposure point concentration.

TABLE 33
EXPOSURE POINT CONCENTRATIONS (mg/L)
WETLAND SURFACE WATER (TOTAL)

Chemical of Interest*	Average	Max Detection	Min Detection	^{Tot} RW _{Comb} ⁽¹⁾	^{SW} RBELs Saltwater Fish Only ⁽¹⁾	RME EPC ⁽²⁾	Statistic Used	# of Detects/# of Samples
1,2-Dichloroethane	2.30E-03	3.85E-03	2.55E-03	1.96E-01	4.93E-02	3.85E-03	RME EPC is max detect	3 of 4
Acrolein	1.21E-02	9.29E-03	9.29E-03	4.26E-01	2.90E-01	9.30E-03	RME EPC is max detect*	1 of 4
Aluminum	5.08E-01	8.00E-01	1.70E-01	4.03E+02	...	8.00E-01	RME EPC is max detect	4 of 4
Barium	2.20E-01	3.70E-01	1.50E-01	6.49E+01	...	3.70E-01	RME EPC is max detect	4 of 4
Boron	1.96E+00	2.42E+00	8.30E-01	7.44E+01	...	2.42E+00	RME EPC is max detect	4 of 4
Chromium	1.49E-02	3.70E-02	2.00E-02	1.26E+02	2.20E+00	3.70E-02	RME EPC is max detect	2 of 4
Chromium VI	3.13E-03	8.00E-03	8.00E-03	2.43E-01	...	8.00E-03	RME EPC is max detect	1 of 4
Copper	6.38E-03	1.10E-02	9.50E-03	3.31E+01	...	1.10E-02	RME EPC is max detect	2 of 4
Iron	6.45E-01	1.08E+00	1.90E-01	1.08E+00	RME EPC is max detect	4 of 4
Lithium	1.89E-01	2.50E-01	5.70E-02	1.65E+01	...	2.50E-01	RME EPC is max detect	4 of 4
Manganese	1.37E-01	3.40E-01	1.80E-02	4.09E+01	1.00E-01	3.40E-01	RME EPC is max detect	4 of 4
Mercury	3.75E-05	7.00E-05	4.00E-05	9.73E-02	2.50E-05	7.00E-05	RME EPC is max detect	2 of 4
Molybdenum	9.30E-03	1.50E-02	5.60E-03	3.47E+00	...	1.50E-02	RME EPC is max detect	3 of 4
Nickel	1.10E-03	2.20E-03	1.20E-03	1.13E+00	4.60E+00	2.20E-03	RME EPC is max detect	2 of 4
Strontium	5.27E+00	6.64E+00	1.87E+00	3.38E+02	...	6.64E+00	RME EPC is max detect	4 of 4
Titanium	6.40E-03	9.80E-03	2.40E-03	8.67E+04	...	9.80E-03	RME EPC is max detect	4 of 4
Zinc	7.30E-03	2.20E-02	2.20E-02	2.01E+02	2.60E+00	2.20E-02	RME EPC is max detect	1 of 4

WETLAND SURFACE WATER (DISSOLVED METALS)

Chemicals of Interest*	Average	Max Detection	Min Detection	^{Tot} RW _{Comb} ⁽¹⁾	^{SW} RBELs Saltwater Fish Only ⁽¹⁾	RME EPC ⁽²⁾	Statistic Used	# of Detects/# of Samples
Barium	3.20E-04	3.50E-01	1.40E-01	6.49E+01	...	3.50E-01	RME EPC is max detect	4 of 4
Boron	2.70E-02	2.75E+00	8.50E-01	7.44E+01	...	2.75E+00	RME EPC is max detect	4 of 4
Chromium	1.20E-03	3.70E-02	1.90E-02	1.26E+02	2.20E+00	3.70E-02	RME EPC is max detect	2 of 4
Copper	2.50E-03	1.10E-02	5.30E-03	3.31E+01	...	1.10E-02	RME EPC is max detect	3 of 4
Lithium	3.50E-03	2.80E-01	5.70E-02	1.65E+01	...	2.80E-01	RME EPC is max detect	4 of 4
Manganese	6.00E-04	3.30E-01	2.50E-02	4.09E+01	1.00E-01	3.30E-01	RME EPC is max detect	4 of 4
Molybdenum	2.70E-03	1.70E-02	5.40E-03	3.47E+00	...	1.70E-02	RME EPC is max detect	3 of 4
Nickel	4.50E-04	1.30E-03	4.90E-04	1.13E+00	4.60E+00	1.30E-03	RME EPC is max detect	2 of 4
Strontium	9.40E-04	7.01E+00	1.89E+00	3.38E+02	...	7.01E+00	RME EPC is max detect	4 of 4

Notes:

*The maximum detected value is sometimes lower than the average since 1/2 of the reporting limit was used as a proxy value when it was not detected, and because J flag data were used in the risk assessment.

^a Chemicals of interest are any chemical measured in at least one sample at a frequency of detection greater than five percent. Bolded compounds have a maximum concentration that exceeded one-tenth of the screening value.

⁽¹⁾ - TRRP 24. TCEQ, March 31, 2006.

⁽²⁾ RME EPC is the reasonable maximum exposure point concentration.

TABLE 34
EXPOSURE POINT CONCENTRATIONS (mg/L)
POUND SURFACE WATER (TOTAL)

Chemical of Interest*	Average	Max Detection	Min Detection	Tot RW _{Comb} ⁽¹⁾	^{SW} RBEls Saltwater Fish Only ⁽¹⁾	RME EPC ⁽²⁾	Statistic Used	# of Detects/# of Samples
4-Chloroaniline	2.79E-04	8.23E-04	8.23E-04	2.14E+00	NA	8.00E-04	RME EPC is max detect	1 of 6
Aluminum	9.13E-01	2.22E+00	4.10E-01	4.03E+02	NA	2.22E+00	RME EPC is max detect	5 of 6
Antimony	3.82E-03	7.60E-03	3.00E-03	1.99E-01	6.40E+00	7.60E-03	RME EPC is max detect	3 of 6
Arsenic	5.40E-03	1.30E-02	1.20E-02	2.85E-02	1.40E-02	1.30E-02	RME EPC is max detect	2 of 6
Barium	1.45E-01	1.90E-01	1.30E-01	6.49E+01	NA	1.90E-01	RME EPC is max detect	6 of 6
Benz(a)pyrene	1.12E-04	3.48E-04	3.48E-04	---	5.40E-03	3.00E-04	RME EPC is max detect	1 of 6
Benz(o)fluoranthene	4.03E-04	1.81E-03	1.81E-03	---	1.80E-03	1.80E-03	RME EPC is max detect	1 of 6
Benz(o,h)perylene	3.71E-04	1.73E-03	1.73E-03	---	NA	1.70E-03	RME EPC is max detect	1 of 6
Benz(k)fluoranthene	2.06E-04	5.42E-04	5.42E-04	---	1.80E-03	5.00E-04	RME EPC is max detect	1 of 6
Bis(2-ethylhexyl)phthalate	1.92E-02	4.00E-02	2.90E-02	---	2.20E-01	4.00E-02	RME EPC is max detect	3 of 6
Boron	2.97E+00	3.52E+00	2.45E+00	7.44E+01	NA	3.52E+00	RME EPC is max detect	6 of 6
Chromium	8.50E-04	1.50E-03	1.50E-03	1.26E+02	2.20E+01	1.50E-03	RME EPC is max detect	1 of 6
Chromium VI	8.50E-03	1.60E-02	1.50E-02	2.43E-01	NA	1.60E-02	RME EPC is max detect	2 of 6
Chrysene	2.48E-04	7.10E-04	7.10E-04	---	5.40E-02	7.00E-04	RME EPC is max detect	1 of 6
Cobalt	9.12E-04	3.20E-03	5.20E-04	5.33E+01	NA	3.20E-03	RME EPC is max detect	2 of 6
Dibenz(a,h)anthracene	6.26E-04	3.04E-03	3.04E-03	---	1.80E-03	3.00E-03	RME EPC is max detect	1 of 6
Di-n-butyl Phthalate	3.12E-03	3.81E-03	1.07E-03	4.49E+00	4.50E+01	3.80E-03	RME EPC is max detect	5 of 6
Indeno(1,2,3-cd)pyrene	6.73E-04	3.44E-03	3.44E-03	---	1.80E-03	3.40E-03	RME EPC is max detect	1 of 6
Iron	2.27E+00	6.67E+00	5.20E-01	---	NA	6.67E+00	RME EPC is max detect	6 of 6
Lead	2.63E-03	1.10E-02	1.10E-02	---	1.69E-01	1.10E-02	RME EPC is max detect	1 of 6
Lithium	1.16E-01	1.60E-01	6.70E-02	1.65E+01	NA	1.60E-01	RME EPC is max detect	6 of 6
Manganese	6.37E-01	1.44E+00	8.50E-02	4.09E+01	1.00E+00	1.44E+00	RME EPC is max detect	6 of 6
Molybdenum	8.73E-03	1.80E-02	1.30E-02	3.47E+00	NA	1.80E-02	RME EPC is max detect	3 of 6
Nickel	4.60E-03	7.90E-03	3.00E-03	1.13E+01	4.60E+01	7.90E-03	RME EPC is max detect	6 of 6
Selenium	4.26E-03	9.80E-03	9.80E-03	4.13E+00	4.20E+01	9.80E-03	RME EPC is max detect	1 of 6
Silver	9.30E-03	1.50E-02	3.70E-03	1.57E+00	NA	1.50E-02	RME EPC is max detect	6 of 6
Strontium	4.47E+00	7.19E+00	1.77E+00	3.38E+02	NA	7.19E+00	RME EPC is max detect	6 of 6
Thallium	2.86E-03	7.70E-03	6.20E-03	6.61E-02	4.70E-03	7.70E-03	RME EPC is max detect	2 of 6
Titanium	1.90E-02	4.40E-02	2.10E-03	8.67E+04	NA	4.40E-02	RME EPC is max detect	6 of 6
Vanadium	3.20E-03	8.40E-03	4.30E-03	1.08E+00	NA	8.40E-03	RME EPC is max detect	3 of 6
Zinc	1.20E-01	6.30E-01	2.70E-02	2.01E+02	2.60E+02	6.30E-01	RME EPC is max detect	3 of 6

POUND SURFACE WATER (DISSOLVED METALS)

Chemicals of Interest*	Average	Max Detection	Min Detection	Tot RW _{Comb} ⁽¹⁾	^{SW} RBEls Saltwater Fish Only ⁽¹⁾	RME EPC	Statistic Used	# of Detects/# of Samples
Antimony	3.50E-03	6.30E-03	3.10E-03	1.99E-01	6.40E+00	6.30E-03	RME EPC is max detect	3 of 6
Barium	1.25E-01	1.30E-01	1.20E-01	6.49E+01	NA	1.30E-01	RME EPC is max detect	6 of 6
Boron	2.79E+00	3.33E+00	2.36E+00	7.44E+01	---	3.33E+00	RME EPC is max detect	6 of 6
Lithium	1.45E-01	2.20E-01	8.00E-02	1.65E+01	NA	2.20E-01	RME EPC is max detect	6 of 6
Manganese	4.65E-01	1.06E+00	6.60E-02	4.09E+01	1.00E+00	1.06E+00	RME EPC is max detect	6 of 6
Molybdenum	1.01E-02	1.90E-02	1.80E-02	3.47E+00	NA	1.90E-02	RME EPC is max detect	3 of 6
Nickel	1.43E-03	2.60E-03	1.90E-03	1.13E+01	4.60E+01	2.60E-03	RME EPC is max detect	3 of 6
Silver	1.83E-03	2.90E-03	9.40E-04	1.57E+00	NA	2.90E-03	RME EPC is max detect	6 of 6
Strontium	4.32E+00	6.97E+00	1.78E+00	3.38E+02	NA	6.97E+00	RME EPC is max detect	6 of 6
Thallium	1.53E-03	3.20E-03	1.40E-03	6.61E-02	4.70E-03	3.20E-03	RME EPC is max detect	3 of 6
Vanadium	7.59E-04	2.10E-03	2.10E-03	1.08E+00	NA	2.10E-03	RME EPC is max detect	1 of 6

Notes:

*The maximum detected value is sometimes lower than the average since 1/2 of the reporting limit was used as a proxy value when it was not detected, and because J flag data were used in the risk assessment.

* Chemicals of interest are any chemical measured in at least one sample at a frequency of detection greater than five percent. Bolded compounds have a maximum concentration that exceeded one-tenth of the screening value.

⁽¹⁾ - TRRP 24. TCEQ, March 31, 2006.

⁽²⁾ RME EPC is the reasonable maximum exposure point concentration.

TABLE 35
EXPOSURE POINT CONCENTRATIONS (mg/kg)
WETLAND SEDIMENT

Chemical of Interest*	Average	Max Detection	Min Detection	Tot Sed _{Comb} ⁽¹⁾		95% UCL	Statistic Used ⁽²⁾	# of Detects/# of Samples
1,2-Dichloroethane	1.85E-03	2.40E-03	1.83E-03	6.0E+02	<	1.50E-04	median	3 of 48
2-Methylnaphthalene	2.25E-02	4.30E-01	1.22E-02	4.9E+02	<	1.20E-02	median	4 of 48
4,4'-DDT	1.39E-03	9.22E-03	9.29E-04	8.7E+01		2.52E-03	97.5% KM (Chebyshev)	16 of 55
Acenaphthene	2.13E-02	1.33E-01	1.60E-02	7.4E+03	<	1.11E-02	median	4 of 48
Acenaphthylene	4.88E-02	5.45E-01	2.91E-02	7.4E+03	<	1.27E-02	median	4 of 48
Aluminum	1.32E+04	1.82E+04	3.40E+03	1.5E+05		1.40E+04	95% Student's-t	48 of 48
Anthracene	2.99E-02	3.34E-01	8.38E-03	3.7E+04		9.70E-02	97.5% KM (Chebyshev)	8 of 48
Antimony ⁽³⁾	1.24E+00	4.24E+00	4.60E-01	8.3E+01		1.80E+00	97.5% KM (Chebyshev)	40 of 48
Arsenic	2.78E+00	1.28E+01	1.00E+00	1.1E+02		4.81E+00	97.5% KM (Chebyshev)	35 of 48
Barium	1.52E+02	8.20E+02	3.60E+01	2.3E+04		2.38E+02	95% Chebyshev	48 of 48
Benzo(a)anthracene	9.20E-02	9.93E-01	5.46E-02	1.6E+01	<	1.14E-02	median	5 of 48
Benzo(a)pyrene	1.10E-01	1.30E+00	1.76E-02	1.6E+00		3.47E-01	97.5% KM (Chebyshev)	15 of 48
Benzo(b)fluoranthene	9.23E-02	1.36E+00	1.62E-02	1.6E+01		1.59E-01	95% KM (BCA)	19 of 48
Benzo(g,h,i)perylene	2.06E-01	1.94E+00	4.40E-02	3.7E+03		4.49E-01	95% KM (Chebyshev)	24 of 48
Benzo(k)fluoranthene	1.01E-01	7.30E-01	6.92E-02	1.6E+02		1.31E-01	95% KM (Bootstrap)	14 of 48
Beryllium	8.94E-01	1.37E+00	2.80E-01	2.7E+01		9.43E-01	95% Student's-t	48 of 48
Boron ⁽³⁾	1.53E+01	4.62E+01	5.17E+00	1.1E+05		2.61E+01	97.5% KM (Chebyshev)	24 of 48
Cadmium	1.16E-01	4.80E-01	3.30E-02	1.1E+03		2.42E-01	97.5% KM (Chebyshev)	20 of 48
Carbazole	2.12E-02	1.41E-01	1.58E-02	7.1E+02	<	1.10E-02	median	5 of 48
Carbon Disulfide	3.48E-03	6.99E-03	3.34E-03	7.3E+04	<	1.40E-04	median	4 of 48
Chromium	1.51E+01	4.46E+01	8.96E+00	3.6E+04		1.64E+01	95% Student's-t	48 of 48
Chromium VI	1.63E+00	4.04E+00	1.30E+00	1.4E+02	<	5.67E-01	median	6 of 25
Chrysene	2.15E-01	4.05E+00	1.10E-02	1.6E+03		8.71E-01	97.5% KM (Chebyshev)	19 of 48
Cobalt	6.98E+00	9.89E+00	3.00E+00	3.2E+04		7.32E+00	95% Student's-t	48 of 48
Copper	1.45E+01	4.90E+01	5.44E+00	2.1E+04		2.21E+01	97.5% KM (Chebyshev)	48 of 48
Dibenz(a,h)anthracene	2.87E-01	2.91E+00	1.29E-01	1.6E+00	<	3.75E-02	median	6 of 48
Dibenzofuran	1.29E-02	8.00E-02	1.00E-02	6.1E+02		1.56E-02	median	3 of 48
Endosulfan Sulfate	8.46E-03	6.00E-02	7.31E-03	9.2E+02	<	4.40E-04	median	3 of 48
Endrin Aldehyde	1.28E-03	1.00E-02	5.66E-04	4.6E+01		3.32E-03	97.5% KM (Chebyshev)	9 of 48
Endrin Ketone	3.55E-03	1.30E-02	3.29E-03	4.6E+01	<	5.50E-04	median	3 of 48
Fluoranthene	1.04E-01	2.17E+00	1.20E-02	4.9E+03		4.46E-01	97.5% KM (Chebyshev)	13 of 48
Fluorene	2.17E-02	1.39E-01	1.50E-02	4.9E+03	<	1.10E-02	median	4 of 48
gamma-Chlordane	8.77E-04	3.60E-03	7.69E-04	4.1E+01	<	4.40E-04	median	4 of 48
Indeno(1,2,3-cd)pyrene	2.20E-01	1.94E+00	6.28E-02	1.6E+01		3.17E-01	95% KM (BCA)	23 of 48
Iron	1.72E+04	6.09E+04	1.11E+04	---		1.88E+04	95% Student's-t	48 of 48
Lead	2.54E+01	2.37E+02	9.40E+00	5.0E+02		4.68E+01	95% Chebyshev	48 of 48
Lithium	1.87E+01	2.76E+01	5.43E+00	1.1E+04		1.96E+01	95% Student's-t	48 of 48
Manganese	3.32E+02	1.01E+03	8.76E+01	1.4E+04		5.17E+02	97.5% Chebyshev	48 of 48
Mercury	2.04E-02	8.10E-02	6.10E-03	3.4E+01		3.80E-02	97.5% KM (Chebyshev)	26 of 48
Molybdenum	5.99E-01	3.24E+00	1.30E-01	1.8E+03		1.20E+00	97.5% KM (Chebyshev)	38 of 48
Nickel	1.73E+01	2.77E+01	1.09E+01	1.4E+03		1.81E+01	95% Student's-t	48 of 48
Phenanthrene	8.46E-02	1.30E+00	2.30E-02	3.7E+03		1.56E-01	95% KM (BCA)	12 of 48
Pyrene	1.52E-01	1.64E+00	1.59E-02	3.7E+03		4.77E-01	97.5% KM (Chebyshev)	19 of 48
Strontium	6.70E+01	3.30E+02	1.88E+01	1.5E+05		1.15E+02	97.5% KM (Chebyshev)	48 of 48
Tin ⁽³⁾	6.38E-01	4.61E+00	3.45E+00	9.2E+04		1.26E+00	95% Chebyshev	4 of 48
Titanium	2.91E+01	6.87E+01	8.15E+00	1.0E+06		4.17E+01	97.5% Chebyshev	48 of 48
Toluene	1.58E-03	2.14E-03	1.57E-03	5.9E+04	<	7.30E-04	median	3 of 48
Vanadium	2.17E+01	3.20E+01	9.02E+00	3.3E+02		2.28E+01	95% Student's-t	48 of 48
Zinc	1.39E+02	9.03E+02	3.15E+01	7.6E+04		2.36E+02	95% Chebyshev	53 of 53

Notes:

* Chemicals of interest are any chemical measured in at least one sample at a frequency of detection greater than five percent. Bolded compounds have a maximum concentration that exceeded one-tenth of the screening value.

(1) - Tot_{Sed}_{Comb} PCL = TCEQ Protective Concentration Level for total sediment combined pathway (includes inhalation; ingestion; dermal pathways).

(2) - Recommended exposure point concentration to be used based on data distribution per Pro UCL (see Appendix A of BHHRA).

(3) - Samples 2WSED8, SWSED10, 4WSED2, and 4WSED3 were re-analyzed for antimony, boron, and tin because the initial data indicated concentrations much higher than data for the rest of the samples although QA/QC indicated that they were acceptable. The re-analysis was run twice with good concurrence between the two re-analyses but with very different values from the original so the first re-analyzed value was used in the UCL calculation.

TABLE 36
EXPOSURE POINT CONCENTRATIONS (mg/kg)
POND SEDIMENT

Chemical of Interest [*]	Average	Max Detection	Min Detection	Tot _{Sed} _{Comb} ⁽¹⁾	<	RME EPC	Statistic Used ⁽²⁾	# of Detects/# of Samples
2,4,6-Trichlorophenol	4.29E-02	4.29E-02	4.29E-02	1.3E+03	<	2.69E-02	median	1 of 8
4,4'-DDD	6.76E-04	6.76E-04	6.76E-04	1.2E+02	<	2.00E-02	median	1 of 8
4,4'-DDT	1.27E-03	1.57E-03	1.11E-03	8.7E+01	<	1.10E-02	median	3 of 8
Acetone	7.98E-02	7.98E-02	7.98E-02	6.6E+05	<	4.25E-02	median	1 of 8
Aluminum	1.17E+04	1.63E+04	7.99E+03	1.5E+05	1.40E+04		95% Student's-t	8 of 8
Antimony	1.41E+00	1.85E+00	3.30E-01	8.3E+01	<	4.40E-01	median	8 of 8
Arsenic	3.76E+00	5.01E+00	3.39E+00	1.1E+02	<	3.35E-01	median	3 of 8
Barium	1.99E+02	4.17E+02	1.08E+02	2.3E+04		3.83E+02	95% Chebyshev	8 of 8
Benzo(b)fluoranthene	5.37E-02	1.06E-01	2.93E-02	1.6E+01	<	3.38E-02	median	6 of 8
Benzo(g,h,i)perylene	1.35E-01	1.35E-01	1.35E-01	3.7E+03	<	1.59E-02	median	1 of 8
Benzo(k)fluoranthene	1.14E-01	1.30E-01	1.10E-01	1.6E+02	<	2.75E-02	median	3 of 8
Beryllium	8.34E-01	1.13E+00	5.80E-01	2.7E+01		9.72E-01	95% Student's-t	8 of 8
beta-BHC	6.99E-04	6.99E-04	6.99E-04	1.4E+01	<	2.30E-02	median	1 of 8
Boron	1.73E+01	2.84E+01	1.10E+01	1.1E+05	<	1.24E+01	median	5 of 8
Bromomethane	1.61E-02	3.10E-02	1.40E-02	1.0E+03	<	1.35E-02	median	2 of 8
Cadmium	2.13E-01	2.70E-01	1.90E-01	1.1E+03	<	1.90E-01	median	5 of 8
Carbon Disulfide	7.71E-03	7.71E-03	7.71E-03	7.3E+04	<	9.60E-04	median	1 of 8
Chromium	1.29E+01	2.01E+01	8.29E+00	3.6E+04		1.60E+01	95% Student's-t	8 of 8
Chrysene	2.57E-02	2.57E-02	2.57E-02	1.6E+03	<	1.40E-02	median	1 of 8
Cobalt	6.94E+00	8.99E+00	5.19E+00	3.2E+04		7.86E+00	95% Student's-t	8 of 8
Copper	1.52E+01	2.68E+01	8.33E+00	2.1E+04		2.02E+01	95% Student's-t	8 of 8
Iron	1.53E+04	2.01E+04	1.13E+04	---		1.74E+04	95% Student's-t	8 of 8
Lead	1.75E+01	3.05E+01	1.06E+01	5.0E+02		2.23E+01	95% Student's-t	8 of 8
Lithium	1.85E+01	2.37E+01	1.35E+01	1.1E+04		2.12E+01	95% Student's-t	8 of 8
m,p-Cresol	3.75E-02	3.75E-02	3.75E-02	---	<	2.34E-02	median	1 of 8
Manganese	4.88E+02	7.11E+02	3.52E+02	1.4E+04		5.71E+02	95% Student's-t	8 of 8
Methyl Iodide	4.10E-02	4.10E-02	4.10E-02	1.0E+03	<	7.84E-03	median	1 of 8
Molybdenum	2.59E-01	6.00E-01	2.10E-01	1.8E+03	<	1.20E-01	median	2 of 8
Nickel	1.63E+01	2.06E+01	1.23E+01	1.4E+03		1.84E+01	95% Student's-t	8 of 8
Pyrene	2.13E-02	2.65E-02	2.01E-02	3.7E+03	<	1.96E-02	median	3 of 8
Strontium	1.04E+02	1.81E+02	6.33E+01	1.5E+05		1.32E+02	95% Student's-t	8 of 8
Titanium	3.00E+01	4.05E+01	1.91E+01	1.0E+06		3.54E+01	95% Student's-t	8 of 8
Vanadium	2.18E+01	2.74E+01	1.68E+01	3.3E+02		2.46E+01	95% Student's-t	8 of 8
Zinc	3.32E+02	9.99E+02	3.82E+01	7.6E+04		9.61E+02	95% Chebyshev	8 of 8

Notes:

* Chemicals of interest are any chemical measured in at least one sample at a frequency of detection greater than five percent. Bolded compounds have a maximum concentration that exceeded one-tenth of the screening value.

(1) - Tot_{Sed}_{Comb} PCL = TCEQ Protective Concentration Level for total sediment combined pathway (includes inhalation; ingestion; dermal pathways).

(2) - Recommended exposure point concentration to be used based on data distribution per Pro UCL (see Appendix A of BHHRA).

TABLE 37
EXPOSURE POINT CONCENTRATIONS (mg/kg)
BACKGROUND SOIL+

Chemical of Interest ^{**}	Average	Max Detection	Min Detection	TotSoil _{Comb} ⁽¹⁾	EPA Region 6 Soil Screening Criteria ⁽²⁾	95% UCL	Statistic Used ⁽³⁾	# of Detects/# of Samples
Antimony	1.62E+00	2.19E+00	2.50E-01	3.06E+02	4.50E+02	< 8.90E-01	median	5 of 10
Arsenic	3.44E+00	5.90E+00	2.40E-01	1.96E+02	1.80E+00	4.48E+00	95% Winsor's-t	10 of 10
Barium	3.33E+02	1.13E+03	1.50E+02	8.90E+04	7.90E+04	9.02E+02	97.5% Chebyshev	10 of 10
Benzo(a)anthracene	8.20E-02	8.20E-02	8.20E-02	2.36E+01	2.30E+00	< 7.61E-03	median	1 of 10
Benzo(a)pyrene	7.60E-02	7.60E-02	7.60E-02	2.37E+00	2.30E-01	< 1.00E-02	median	1 of 10
Benzo(b)fluoranthene	5.70E-02	5.70E-02	5.70E-02	2.36E+01	2.30E+00	< 8.22E-03	median	1 of 10
Benzo(g,h,i)perylene	8.30E-02	8.30E-02	8.30E-02	1.86E+04	---	< 3.50E-02	median	1 of 10
Benzo(k)fluoranthene	1.06E-01	1.06E-01	1.06E-01	2.37E+02	2.30E+01	< 1.15E-02	median	1 of 10
Cadmium	8.30E-02	1.10E-01	4.10E-02	8.52E+02	5.60E+02	< 1.90E-02	median	3 of 10
Carbazole	1.10E-02	1.10E-02	1.10E-02	9.54E+02	9.60E+01	< 8.86E-03	median	1 of 10
Chromium	1.52E+01	2.01E+01	1.07E+01	5.70E+04	5.00E+02	< 1.70E+01	95% Student's-t	10 of 10
Chrysene	8.30E-02	8.30E-02	8.30E-02	2.40E+03	2.30E+02	< 1.40E-02	median	1 of 10
Copper	1.21E+01	1.93E+01	7.68E+00	3.70E+04	4.20E+04	< 1.44E+01	95% Student's-t	10 of 10
Fluoranthene	1.56E-01	1.56E-01	1.56E-01	2.48E+04	2.40E+04	< 1.15E-02	median	1 of 10
Indeno(1,2,3-cd)pyrene	4.17E-01	4.17E-01	4.17E-01	2.37E+01	2.30E+00	< 2.95E-02	median	1 of 10
Lead	1.34E+01	1.52E+01	1.10E+01	1.60E+03	8.00E+02	< 1.43E+01	95% Student's-t	10 of 10
Lithium	2.11E+01	3.25E+01	1.44E+01	1.90E+03	2.30E+04	< 2.41E+01	95% Student's-t	10 of 10
Manganese	3.77E+02	5.51E+02	2.84E+02	2.41E+04	3.50E+04	< 5.07E+02	95% Chebyshev	10 of 10
Mercury	2.13E-02	3.00E-02	1.50E-02	3.26E+00	3.40E+02	< 2.41E-02	95% Student's-t	10 of 10
Molybdenum	5.22E-01	6.80E-01	4.20E-01	4.51E+03	5.70E+03	< 5.65E-01	95% Student's-t	10 of 10
Phenanthrene	1.37E-01	1.37E-01	1.37E-01	1.86E+04	---	< 6.72E-03	median	1 of 10
Pyrene	1.27E-01	1.27E-01	1.27E-01	1.86E+04	3.20E+04	< 2.00E-02	median	1 of 10
Zinc	2.47E+02	9.69E+02	3.66E+01	2.45E+05	1.00E+05	< 7.50E+02	95% Chebyshev	10 of 10

Notes:

+ Soil was collected from 0 to 4 ft. below ground surface.

** Chemicals of interest are any chemical measured in at least one sample. Bolded compounds have a maximum concentration that exceeded one-tenth of the screening value.

(1) - TotSoil_{Comb} PCL = TCEQ Protective Concentration Level for 30 acre source area Commercial/Industrial total soil combined pathway (includes inhalation; ingestion; dermal pathways).

(2) - From EPA's "Region 6 Human Health Medium-Specific Screening Levels 2004-2005". Industrial Outdoor Worker.

(3) - Recommended exposure point concentration to be used based on data distribution per Pro UCL (see Appendix A of BHHRA).

TABLE 38
BACKGROUND COMPARISONS

HYPOTHESIS TESTED: ARE SITE DATA STATISTICALLY DIFFERENT THAN BACKGROUND DATA? ⁽¹⁾							
CHEMICAL OF INTEREST	SOUTH AREA SURFACE SOIL	SOUTH AREA SOIL	NORTH AREA SURFACE SOIL	NORTH AREA SOIL	INTRACOASTAL WATERWAY SEDIMENT	WETLANDS SEDIMENT	POND SEDIMENT
Aluminum	NA	NA	NA	NA	Yes*	NA	NA
Antimony	No	No	No	No	Yes*	No	No
Arsenic	No	No	No	No	Yes*	No	Yes*
Barium	No	No	Yes*	Yes*	No	Yes*	No
Beryllium	NA	NA	NA	NA	Yes*	NA	NA
Boron	NA	NA	NA	NA	Yes*	NA	NA
Cadmium	No	No	Yes	Yes*	NA	Yes	Yes
Chromium	No	No	No	No	NA	No	No
Cobalt	NA	NA	NA	NA	Yes*	NA	NA
Copper	Yes	No	No	No	No	No	No
Iron	NA	NA	NA	NA	No	NA	No
Lead	Yes	No	No	No	No	No	Yes
Lithium	Yes*	Yes*	Yes*	No	Yes*	No	No
Manganese	Yes*	Yes*	No	No	No	No	Yes
Mercury	No	No	Yes*	Yes*	No	No	NA
Molybdenum	Yes	No	No	No	No	No	Yes*
Nickel	NA	NA	NA	NA	No	NA	NA
Strontium	NA	NA	NA	NA	Yes*	NA	NA
Titanium	NA	NA	NA	NA	Yes*	NA	NA
Vanadium	NA	NA	NA	NA	Yes*	NA	NA
Zinc	Yes	No	No	No	No	No	No

Notes:

⁽¹⁾ Detailed statistical procedures are outlined in Section 2.2.2 and calculations are provided in Appendix B of BHRA.

* Statistical difference is due to background being greater than site.

NA - No analysis was performed for compound in background.

TABLE 39
EXPOSURE ASSUMPTIONS FOR THE INDUSTRIAL WORKER SCENARIO

PARAMETER	DEFINITION	AVERAGE VALUE	REFERENCE	RME VALUE	REFERENCE
PEF	Particulate Emission Factor (m ³ /kg)	1.00E+09	EPA, 2004a	1.00E+09	EPA, 2004a
IR	Ingestion rate of soil (mg/day)	50	EPA, 2004a	50	EPA, 2004a
SA	Skin surface area (cm ²)	3300	EPA, 2004a	3300	EPA, 2004a
AF	Soil to skin adherence factor (mg/cm ²)	0.021	EPA, 2001a	0.2	EPA, 2004a
EF	Exposure frequency (day/yr)	250	EPA, 2004a	250	EPA, 2004a
ED	Exposure duration (yr)	25	EPA, 2004a	25	EPA, 2004a
BW	Body weight (kg)	70	EPA, 1989	70	EPA, 1989
ATc	Averaging time for carcinogens (days)	25550	EPA, 1989	25550	EPA, 1989
ATnc	Averaging time for noncarcinogens (days)	9125	EPA, 1989	9125	EPA, 1989

TABLE 40
EXPOSURE ASSUMPTIONS FOR THE CONSTRUCTION WORKER SCENARIO

PARAMETER	DEFINITION	AVERAGE VALUE	REFERENCE	RME VALUE	REFERENCE
PEF	Particulate Emission Factor (m ³ /kg)	1.00E+09	EPA, 2004a	1.00E+09	EPA, 2004a
IR	Ingestion rate of soil (mg/day)	165	professional judgment	330	EPA, 2001
SA	Skin surface area (cm ²)	3300	EPA, 2004a	3300	EPA, 2004a
AF	Soil to skin adherence factor (mg/cm ²)	0.14	EPA, 2004b	0.3	EPA, 2004b
EF	Exposure frequency (day/yr)	90	professional judgment	250	professional judgment
ED	Exposure duration (yr)	1	professional judgment	1	professional judgment
BW	Body weight (kg)	70	EPA, 1989	70	EPA, 1989
ATc	Averaging time for carcinogens (days)	25550	EPA, 1989	25550	EPA, 1989
ATnc	Averaging time for noncarcinogens (days)	365	EPA, 1989	365	EPA, 1989

TABLE 41
EXPOSURE ASSUMPTIONS FOR THE YOUTH TRESPASSER SCENARIO

PARAMETER	DEFINITION	AVERAGE VALUE	REFERENCE	RME VALUE	REFERENCE
PEF	Particulate Emission Factor (m ³ /kg)	1.00E+09	EPA, 2004a	1.00E+09	EPA, 2004a
IR	Ingestion rate of soil (mg/day)	100	TNRCC, 1998	100	TNRCC, 1998
SA	Skin surface area (cm ²)	3500	TNRCC, 1998	3500	TNRCC, 1998
AF	Soil to skin adherence factor (mg/cm ²)	0.1	TNRCC, 1998	0.1	TNRCC, 1998
EF	Exposure frequency (day/yr)	25	professional judgment	50	TNRCC, 1998
ED	Exposure duration (yr)	6	professional judgment	12	TNRCC, 1998
BW	Body weight (kg)	40	EPA, 1991a	40	EPA, 1991a
ATc	Averaging time for carcinogens (days)	25550	EPA, 1989	25550	EPA, 1989
ATnc	Averaging time for noncarcinogens (days)	9125	EPA, 1989	9125	EPA, 1989

TABLE 42
EXPOSURE ASSUMPTIONS FOR THE CONTACT RECREATION SCENARIO

PARAMETER	DEFINITION	AVERAGE VALUE	REFERENCE	RME VALUE	REFERENCE
IR	Ingestion rate of soil or sediment (mg/day)	100	TCEQ, 2002	100	TCEQ, 2002
SA	Skin surface area (cm ²)	4400	TCEQ, 2002	4400	TCEQ, 2002
AF	Sediment to skin adherence factor (mg/cm ²)	0.3	TCEQ, 2002	0.3	TCEQ, 2002
EF	Exposure frequency (day/yr)	19	professional judgment	39	TCEQ, 2002
ED	Exposure duration (yr)	13	professional judgment	25	EPA, 1989
BW	Body weight (kg)	70	EPA, 1989	70	EPA, 1989
ATc	Averaging time for carcinogens (days)	25550	EPA, 1989	25550	EPA, 1989
ATnc	Averaging time for noncarcinogens (days)	9125	EPA, 1989	9125	EPA, 1989

TABLE 43
JOHNSON AND ETTINGER VAPOR INTRUSION MODEL OUTPUT FOR
SOUTH AREA GROUNDWATER

Potential Chemical of Concern*	Average	Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)	RME EPC ⁽¹⁾	Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
1,1,1-Trichloroethane	1.85E-04	NA	3.55E-06	1.40E-03	NA	2.68E-05
1,1-Dichloroethane	2.10E-03	NA	6.23E-05	1.50E-02	NA	4.45E-04
2-Butanone	4.30E-04	NA	1.38E-07	3.00E-03	NA	9.59E-07
2-Methylnaphthalene	7.76E-04	NA	2.73E-05	8.80E-03	NA	3.09E-04
4,4'-DDE	3.34E-06	5.18E-11	NA	1.00E-05	1.55E-10	NA
Acetophenone	3.72E-03	NA	5.91E-06	4.60E-02	NA	7.31E-05
Benzene	4.25E-04	2.38E-08	2.38E-04	4.20E-03	2.36E-07	2.35E-03
Benzo(b)fluoranthene	3.26E-04	2.95E-08	NA	2.80E-03	1.36E-07	NA
Carbon Disulfide	6.50E-05	NA	8.94E-06	3.00E-04	NA	4.13E-05
Chrysene	1.93E-04	1.83E-10	NA	6.00E-04	5.69E-10	NA
cis-1,2-Dichloroethene	3.27E-03	NA	1.07E-03	3.00E-02	NA	9.86E-03
Fluorene	1.84E-04	NA	1.56E-06	1.00E-03	NA	8.48E-06
gamma-BHC (Lindane)	7.66E-06	3.61E-10	2.16E-06	4.20E-05	1.98E-09	1.18E-05
Isopropylbenzene (Cumene)	1.78E-04	NA	1.34E-05	1.60E-03	NA	1.21E-04
Vinyl Chloride	1.85E-04	6.15E-08	1.63E-04	1.90E-03	6.31E-07	1.67E-03
TOTAL	1.15E-07		1.60E-03	TOTAL	1.01E-06	1.49E-02

Notes:

* Only volatile compounds were assessed for this pathway.

⁽¹⁾ RME EPC is the reasonable maximum exposure point concentration.

TABLE 44
JOHNSON AND ETTINGER VAPOR INTRUSION MODEL OUTPUT FOR
NORTH AREA GROUNDWATER

Potential Chemical of Concern*+	Average			RME EPC ⁽¹⁾		
1,1,1-Trichloroethane	1.48E+01	NA	2.84E-01	1.56E+02	NA	2.99E+00
1,1-Dichloroethane	2.80E+00	NA	8.31E-02	3.15E+01	NA	9.34E-01
1,1-Dichloroethene	3.46E+00	NA	1.26E+00	2.92E+01	NA	1.06E+01
1,2,3-Trichloropropane	6.17E+00	3.83E-03	3.19E+00	4.43E+01	2.75E-02	2.29E+01
1,2,4-Trimethylbenzene	3.80E-02	NA	8.29E-02	4.20E-02	NA	9.16E-02
1,2-Dichloroethane	2.42E+01	1.39E-03	NA	3.28E+02	1.89E-02	NA
1,2-Dichloropropane	4.90E-01	3.46E-05	1.04E+00	3.45E+00	2.43E-04	7.32E+00
2-Methylnaphthalene	2.70E-03	NA	9.49E-05	1.60E-02	NA	5.62E-04
4,4'-DDE	2.14E-05	3.32E-10	NA	2.70E-04	4.19E-09	NA
Acenaphthene	9.00E-04	NA	6.96E-06	8.60E-03	NA	6.65E-05
Acetone	2.81E-01	NA	1.33E-03	1.15E-01	NA	5.45E-04
Acetophenone	6.80E-03	NA	1.08E-05	7.40E-02	NA	1.18E-04
alpha-BHC	1.96E-05	3.66E-09	NA	2.00E-04	3.74E-08	NA
Benzene	1.02E+00	5.72E-05	5.70E-01	8.24E+00	4.62E-04	4.61E+00
Benzo(b)fluoranthene	3.23E-04	2.92E-08	NA	1.40E-03	1.27E-07	NA
Carbon Tetrachloride	5.60E-01	2.63E-04	NA	7.58E+00	3.56E-03	NA
cis-1,2-Dichloroethene	8.96E+00	NA	2.94E+00	1.24E+02	NA	4.08E+01
Dibenzofuran	6.01E-04	NA	1.51E-05	4.90E-03	NA	1.23E-04
Dieldrin	5.01E-06	2.52E-09	7.30E-06	2.64E-05	1.33E-08	3.85E-05
Ethylbenzene	9.69E-02	NA	1.89E-03	7.40E-01	NA	1.44E-02
Fluorene	8.51E-04	NA	7.22E-06	6.10E-03	NA	5.18E-05
gamma-BHC (Lindane)	1.25E-04	5.89E-09	3.53E-05	1.50E-03	7.06E-08	4.23E-04
m,p-Xylene	6.85E-02	NA	1.34E-02	1.68E-01	NA	3.28E-02
Methylene Chloride	9.57E+01	1.77E-04	2.91E-01	1.23E+03	2.27E-03	3.74E+00
Naphthalene	7.83E-02	NA	6.40E-02	3.22E-01	NA	2.63E-01
o-Xylene	4.62E-02	NA	7.26E-03	4.40E-02	NA	6.92E-03
Pyrene	2.23E-04	NA	7.70E-07	5.00E-04	NA	1.73E-06
Styrene	2.60E-02	NA	1.98E-04	2.50E-03	NA	1.91E-05
Tetrachloroethene	1.95E+00	2.05E-04	1.35E-01	2.05E+01	2.15E-03	1.42E+00
Toluene	3.35E-01	NA	1.61E-02	4.05E+00	NA	1.94E-01
Trichloroethene	1.15E+01	1.43E-02	7.59E+00	8.40E+01	1.05E-01	5.54E+01
Vinyl Chloride	5.02E-01	1.67E-04	4.42E-01	5.09E+00	1.69E-03	4.49E+00
TOTAL	2.04E-02		1.80E+01	TOTAL	1.61E-01	1.56E+02

Notes:

* Only volatile compounds were assessed for this pathway.

+ Compounds with a cancer risk greater than 1×10^{-5} or a hazard index greater than 1 have been bolded.

⁽¹⁾ RME EPC is the reasonable maximum exposure point concentration.

TABLE 45
SUMMARY OF HAZARD INDICES AND CANCER RISK ESTIMATES FOR SOIL AND SEDIMENT EXPOSURE
SOUTH AREA

HYPOTHETICAL ON-SITE RECEPTORS	CARCINOGENIC RISK	NONCARCINOGENIC HAZARD INDEX
Average Youth Trespasser (soil)	9.85E-08	1.79E-03
RME Youth Trespasser (soil)	1.09E-06	1.46E-02
Average Construction Worker (soil)	5.22E-08	2.46E-02
RME Construction Worker (soil)	8.19E-07	2.77E-01
Average Industrial Worker (soil)	9.50E-07	2.01E-02
RME Industrial Worker (soil)	6.08E-06	7.04E-02
Average Industrial Worker (vapor intrusion)	1.15E-07	1.60E-03
RME Industrial Worker (vapor intrusion)	1.01E-06	1.49E-02
TOTAL Average Industrial Worker (soil + vapor intrusion)	1.06E-06	2.17E-02
TOTAL RME Industrial Worker (soil + vapor intrusion)	7.09E-06	8.53E-02
Average Contact Recreation (Intracoastal Waterway Sediment)	4.54E-08	8.35E-04
RME Contact Recreation (Intracoastal Waterway Sediment)	3.40E-08	5.43E-03

NORTH AREA

HYPOTHETICAL ON-SITE RECEPTORS	CARCINOGENIC RISK	NONCARCINOGENIC HAZARD INDEX
Average Youth Trespasser (soil)	2.57E-08	6.21E-03
RME Youth Trespasser (soil)	5.71E-07	2.80E-02
Average Construction Worker (soil)	1.37E-08	8.72E-02
RME Construction Worker (soil)	4.27E-07	5.45E-01
Average Industrial Worker (soil)	2.54E-07	7.34E-02
RME Industrial Worker (soil)	3.20E-06	9.28E-02
Average Industrial Worker (vapor intrusion)	2.04E-02	1.80E+01
RME Industrial Worker (vapor intrusion)	1.61E-01	1.56E+02
TOTAL Average Industrial Worker (soil + vapor intrusion)	2.04E-02	1.81E+01
TOTAL RME Industrial Worker (soil + vapor intrusion)	1.61E-01	1.56E+02
Average Contact Recreation (Wetlands Sediment)	1.09E-07	1.07E-03
RME Contact Recreation (Wetlands Sediment)	4.16E-07	4.65E-03
Average Contact Recreation (Pond Sediment)	---	6.10E-03
RME Contact Recreation (Pond Sediment)	---	2.85E-02

Notes:

* None of the COPCs for this media are considered carcinogenic by EPA.

Table 46
Assessment Endpoints and Measures

Guild	Receptor of Potential Concern	Assessment Endpoint for BERA	Ecological Risk Questions	Testable Hypotheses	Measures of Effects	Measures of Exposure	Measures of Ecosystem and Receptor Characteristics	Toxicity Testing
Invertebrates	Earthworm	Protection of soil invertebrate community from uptake and direct toxic effects on detritivore abundance, diversity, productivity from COPECs in soil.	Does exposure to COPECs in soil adversely affect the abundance, diversity, productivity, and function?	Concentrations of COPECs in soil are adversely affecting invertebrate receptors.	Invertebrate receptor response to identified COPECs in North Area soil.	4,4'-DDT, Aroclor-1254, barium, chromium, copper and zinc concentrations in soils. Sample locations based on gradient of COPEC concentrations.	Invertebrate receptor feeding behavior, growth and reproduction.	Earthworm (<i>Eisenia fetida</i>) (28 day chronic survival and growth)*
Benthos and zooplankton	Polychaetes	Protection of benthic and water-column invertebrate communities from uptake and direct toxic effects on abundance, diversity, and productivity from COPECs in sediment and surface water.	Does exposure to COPECs in sediment and surface water adversely affect the abundance, diversity, productivity, and function?	Concentrations of COPECs in sediment and/or surface water are adversely affecting benthic receptors.	Benthic receptor response to identified COPECs in Intracoastal Waterway sediments and wetland sediments/surface water. Locations chosen on a gradient of COPEC concentrations.	Acrolein, PAHs, organochlorine pesticides, arsenic, copper, lead, nickel, silver and zinc concentrations in Intracoastal Waterway and wetland sediments and surface water. Sample locations for sediments based on gradient of COPEC concentrations.	Benthic receptor feeding behavior, growth and reproduction.	<i>Leptocheirus plumulosus</i> (28d chronic; survival, growth, reproduction); <i>Neanthes arenaceodentata</i> (28d chronic; survival, growth); <i>Mysidopsis bahia</i> (7d chronic; survival, growth)**
Vertebrate Fish	Fish Community	Protection of fish communities from uptake and direct toxic effects on abundance, diversity, and productivity from COPECs in sediment and surface water.	Does exposure to COPECs in surface water adversely affect the abundance, diversity, productivity, and function?	Concentrations of COPECs in surface water are adversely affecting fish communities.	Fish Communities response to identified COPECs in wetland and pond surface water in the vicinity of concentrations exceeding applicable surface water benchmarks.	Acrolein, copper and silver concentrations in wetland and pond surface water in the vicinity of sample locations relative to appropriate effect levels.	Fish community diversity and stability.	Not Applicable***

* Note that the earthworm (*Eisenia fetida*) as a test species was replaced with *Neanthes arenaceodentata* due to the elevated salinities in the North Area Soils.

** Note that the Mysid Shrimp (*Mysidopsis bahia*) as a test species was replaced with *Artemia salina* (brine shrimp) due to the elevated salinities in the surface water.

***The original risk question that addressed the abundance, diversity, productivity and function of the fish community is not applicable because of the harsh conditions and intermittent presence of the surface water in a salt panne.

Table 47
Field Sampling Parameters - Water

Sample Area/Type	Sample ID	Date	Water Depth (ft)	pH	Conductivity (mS)	Temperature (°C)	Salinity (ppt)	DO (mg/L)
ICWW Sediment/ Porewater	EIWSED01	8/18/2010	1.0	7.97	43.94	30.11	25.41	5.11
			4.0	7.98	43.94	30.11	25.42	5.39
			6.9	7.99	43.94	30.11	25.42	5.74
	EIWSED02	8/18/2010	1.0	8.01	43.68	30.15	25.23	4.29
			3.5	8.06	43.66	30.09	25.24	4.35
	EIWSED03	8/18/2010	1.0	8.03	43.90	30.16	25.20	4.81
			1.9	8.09	43.60	30.80	25.19	8.09
	EIWSED04	8/21/2010	1.4	7.95	44.18	30.47	25.40	4.70
	EIWSED05	8/18/2010	1.0	7.97	39.96	30.62	25.35	5.15
			2.6	7.96	40.02	30.40	25.40	5.90
	EIWSED06	8/18/2010	1.0	8.01	38.21	31.51	24.10	6.56
			3.6	7.97	42.95	31.59	24.08	7.23
	EIWSED07	8/18/2010	1.0	8.04	42.69	31.63	23.88	6.86
			3.0	8.06	42.77	31.63	23.92	6.94
			6.3	8.07	42.84	31.62	23.95	6.95
	EIWSED01PW	8/20/2010	1.0	7.76	46.68	28.81	27.94	4.62
			3.0	7.76	46.71	28.80	27.94	4.82
			6.0	7.76	46.71	28.80	27.99	4.79
	EIWSED02PW	8/20/2010	1.0	7.76	46.70	28.87	27.90	5.03
			3.6	7.76	46.72	28.89	27.92	5.24
	EIWSED03PW	8/20/2010	1.5	7.74	43.29	29.18	27.76	5.50
	EIWSED04PW	8/21/2010	1.0	7.94	46.57	28.25	28.18	4.19
			2.8	7.94	46.52	28.20	28.18	4.05
	EIWSED05PW	8/21/2010	1.0	7.94	43.81	28.24	28.16	4.74
			3.0	7.95	43.82	28.27	28.17	5.08
	EIWSED06PW	8/22/2010	1.0	8.16	43.57	28.11	27.99	4.52
			3.0	8.15	43.57	28.11	28.00	4.73
			4.9	8.09	43.57	28.11	27.99	4.87
	EIWSED07PW	8/30/2010	1.0	6.52	59.35	29.74	35.95	8.01
			3.5	6.52	58.49	29.67	36.00	8.06
			6.9	6.59	59.36	29.57	36.00	7.71
Surface Water	EWSW01	8/30/2010	0.1	5.86	77.38	35.37	43.23	3.78
	EWSW04	8/30/2010	0.1	7.19	75.53	35.91	41.69	5.00
	EWSW03	9/14/2010	0.1	7.84	49.10	32.51	27.47	6.24
Wetland Sediment/ Porewater	EWSED06PW	8/31/2010	0.1	7.17	51.66	27.84	31.93	3.80
	EWSED03PW	9/9/2010	0.1	7.75	42.83	28.00	27.46	3.93
	EWSED09PW	9/10/2010	0.1	7.84	49.88	27.63	32.57	6.27
	EWSED04PW	9/13/2010	0.1	7.36	37.01	26.66	22.60	3.06

DO - Dissolved Oxygen

Table 48
Field Sampling Parameters - Sediment

Sample Area/Type	Sample ID	Date	pH	ORP (mV)	Temperature (°C)
ICWW Sediment/ Porewater*	EIWSED01	8/18/2010	6.70	-2.6	31.4
	EIWSED02	8/18/2010	6.80	-4.5	31.3
	EIWSED03	8/18/2010	6.90	-10.8	31.1
	EIWSED04	8/21/2010	6.86	-6.5	31.4
	EIWSED05	8/18/2010	6.89	-8.5	31.5
	EIWSED06	8/18/2010	7.04	-19.3	31.9
	EIWSED07	8/18/2010	6.82	-4.3	31.8
	EIWSED01PW	8/20/2010	7.21	-28.2	30.2
	EIWSED02PW	8/20/2010	7.01	-16.5	30.2
	EIWSED03PW	8/20/2010	7.07	-21.2	30.3
	EIWSED04PW	8/21/2010	6.37	19.4	29.5
	EIWSED05PW	8/21/2010	6.25	28.4	29.8
	EIWSED06PW	8/22/2010	6.77	-1.3	29.5
	EIWSED07PW	8/30/2010	6.37	113.5	30.7
Wetland Sediment/ Porewater*	EWSED01	8/24/2010	6.85	-18.0	30.6
	EWSED02	8/24/2010	6.43	10.2	31.4
	EWSED03	8/23/2010	NA	NA	32.6
	EWSED04	8/23/2010	6.65	263.9	30.8
	EWSED05	8/24/2010	6.23	63.4	37.8
	EWSED06	8/23/2010	7.19	176.1	31.7
	EWSED07	8/23/2010	6.80	216.2	31.3
	EWSED08	8/24/2010	6.95	10.6	31.7
	EWSED09	8/24/2010	6.98	80.5	37.3
	EWSED01PW	8/26/2010	6.59	88.4	29.3
	EWSED02PW	8/26/2010	6.89	-273.8	27.5
	EWSED04PW	8/27/2010	7.05	103.0	27.9
	EWSED06PW	8/31/2010	6.40	30.8	29.1
	EWSED07PW	8/30/2010	6.37	113.5	30.7
	EWSED08PW	8/25/2010	5.41	140.2	32.2
	EWSED03PW	9/9/2010	7.48	14.0	28.0
	EWSED09PW	9/10/2010	7.48	212.9	28.6
	EWSED04PW	9/13/2010	7.19	81.1	28.6

NA - Parameter Not Collected

ORP - Oxygen Reduction Potential

*Parameters from pore water samples were recorded from the overlying water at the sample station at the time of sample collection, not the pore water extracted from the sediment.

Table 49
Summary of Results for Wetland Sediment

Wetland Sediment (all samples from 0-0.5 ft bgs)																				
Location	RI/FS Concentration Gradient (mg/kg DW)		2010 Analytical Results				Mean Bioassay Results***													
			2010 BERA Concentration Gradient (mg/kg DW)	Marine Sediment Benchmark (mg/kg DW)	Pore Water (mg/L)	Marine Surface Water Benchmark (mg/L)														
BERA Sample ID: EWSED01 Wetland Sediment RI/FS sample ID: 2WSED04-004	Location represents high concentrations of multiple COPECs, including PAHs and pesticides; mid concentrations of nickel and 1 PAH; and low concentrations of copper, endrin aldehyde, lead and zinc. Several COPECs are below detection limit and not expected to be present.	Location represents high concentration of 1 PAH; mid concentrations of multiple PAHs and pesticides; and low concentrations of multiple PAHs, lead, and zinc.					Polychaete - 28 day, <i>Neanthes arenaceodentata</i> Survival: No statistically significant difference from reference locations. Growth: No statistically significant difference from reference locations.													
2-Methylnaphthalene	0.153 U	NA	0.0038 J	Low	0.070	0.000018 U	0.03													
4,4'-DDT	0.000939 U	NA	< 0.001 J	NA	0.00119	< 0.000012 J	0.000001	Amphipod - 28 day, <i>Leptocheirus plumulosus</i> Survival: No statistically significant difference from reference locations. Growth: No statistically significant difference from reference locations. Reproduction: Insufficient offspring for statistical analysis.												
Acenaphthene	0.153 U	NA	0.0046 J	Low	0.016	< 0.000052	0.0404													
Acenaphthylene	0.545	High	0.057	Low	0.044	0.000024	NA	Location Mean Survival (%) Mean Biomass (mg) Mean Dry Wt (mg) ** <table border="1"><tr><td>EWSED01</td><td>96</td><td>3.073</td><td>3.234</td></tr><tr><td>EWSED08 (Ref 1)</td><td>68</td><td>1.586</td><td>2.741</td></tr><tr><td>EWSED09 (Ref 2)</td><td>76</td><td>2.15</td><td>2.95</td></tr></table>	EWSED01	96	3.073	3.234	EWSED08 (Ref 1)	68	1.586	2.741	EWSED09 (Ref 2)	76	2.15	2.95
EWSED01	96	3.073	3.234																	
EWSED08 (Ref 1)	68	1.586	2.741																	
EWSED09 (Ref 2)	76	2.15	2.95																	
Anthracene	0.334	Mid	0.043	Low	0.0853	0.000067	0.00018													
Arsenic	0.35 U	NA	2.97	Low	8.2	0.0037 J	0.078	Location Mean Survival (%) Mean Biomass (mg) Mean Dry Wt (mg) ** <table border="1"><tr><td>EWSED01</td><td>35</td><td>0</td><td>0.2607</td></tr><tr><td>EWSED08 (Ref 1)</td><td>33</td><td>0.6</td><td>0.2238</td></tr><tr><td>EWSED09 (Ref 2)</td><td>19</td><td>1.8</td><td>0.1162</td></tr></table>	EWSED01	35	0	0.2607	EWSED08 (Ref 1)	33	0.6	0.2238	EWSED09 (Ref 2)	19	1.8	0.1162
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EWSED08 (Ref 1)	33	0.6	0.2238																	
EWSED09 (Ref 2)	19	1.8	0.1162																	
Benzo(a)anthracene	0.126 U	NA	< 0.066 J	NA	0.261	< 0.000031	NA													
Benzo(a)pyrene	0.972	High	0.24	Mid	0.43	< 0.000051	NA	Location Mean Survival (%) Mean Biomass (mg) Mean Dry Wt (mg) ** <table border="1"><tr><td>EWSED01</td><td>35</td><td>0</td><td>0.2607</td></tr><tr><td>EWSED08 (Ref 1)</td><td>33</td><td>0.6</td><td>0.2238</td></tr><tr><td>EWSED09 (Ref 2)</td><td>19</td><td>1.8</td><td>0.1162</td></tr></table>	EWSED01	35	0	0.2607	EWSED08 (Ref 1)	33	0.6	0.2238	EWSED09 (Ref 2)	19	1.8	0.1162
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EWSED09 (Ref 2)	19	1.8	0.1162																	
Benzo(g,h,i)perylene	1.94	High	0.63	High	0.67	0.000012 J	NA													
Chrysene	4.05	High	0.39	Mid	0.384	< 0.000004	NA	Location Mean Survival (%) Mean Biomass (mg) Mean Dry Wt (mg) ** <table border="1"><tr><td>EWSED01</td><td>35</td><td>0</td><td>0.2607</td></tr><tr><td>EWSED08 (Ref 1)</td><td>33</td><td>0.6</td><td>0.2238</td></tr><tr><td>EWSED09 (Ref 2)</td><td>19</td><td>1.8</td><td>0.1162</td></tr></table>	EWSED01	35	0	0.2607	EWSED08 (Ref 1)	33	0.6	0.2238	EWSED09 (Ref 2)	19	1.8	0.1162
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EWSED08 (Ref 1)	33	0.6	0.2238																	
EWSED09 (Ref 2)	19	1.8	0.1162																	
Copper	16	Low	20.6	Mid	34	0.000922	0.0036													
Dibenz(a,h)anthracene	2.91	High	0.17	Mid	0.0634	< 0.000003	NA	Location Mean Survival (%) Mean Biomass (mg) Mean Dry Wt (mg) ** <table border="1"><tr><td>EWSED01</td><td>35</td><td>0</td><td>0.2607</td></tr><tr><td>EWSED08 (Ref 1)</td><td>33</td><td>0.6</td><td>0.2238</td></tr><tr><td>EWSED09 (Ref 2)</td><td>19</td><td>1.8</td><td>0.1162</td></tr></table>	EWSED01	35	0	0.2607	EWSED08 (Ref 1)	33	0.6	0.2238	EWSED09 (Ref 2)	19	1.8	0.1162
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EWSED08 (Ref 1)	33	0.6	0.2238																	
EWSED09 (Ref 2)	19	1.8	0.1162																	
Endrin Aldehyde	0.00431	Low	0.0007 J	Mid	0.00267	0.000013	0.000002													
Endrin Ketone	0.013	High	< 0.000093	NA	0.00267	< 0.0000078	0.000002	Location Mean Survival (%) Mean Biomass (mg) Mean Dry Wt (mg) ** <table border="1"><tr><td>EWSED01</td><td>35</td><td>0</td><td>0.2607</td></tr><tr><td>EWSED08 (Ref 1)</td><td>33</td><td>0.6</td><td>0.2238</td></tr><tr><td>EWSED09 (Ref 2)</td><td>19</td><td>1.8</td><td>0.1162</td></tr></table>	EWSED01	35	0	0.2607	EWSED08 (Ref 1)	33	0.6	0.2238	EWSED09 (Ref 2)	19	1.8	0.1162
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EWSED09 (Ref 2)	19	1.8	0.1162																	
Fluoranthene	0.189 U	NA	0.038	Low	0.6	< 0.000052	0.00296													
Fluorene	0.12U	NA	0.019	Low	0.019	0.000013 J	0.05	Location Mean Survival (%) Mean Biomass (mg) Mean Dry Wt (mg) ** <table border="1"><tr><td>EWSED01</td><td>35</td><td>0</td><td>0.2607</td></tr><tr><td>EWSED08 (Ref 1)</td><td>33</td><td>0.6</td><td>0.2238</td></tr><tr><td>EWSED09 (Ref 2)</td><td>19</td><td>1.8</td><td>0.1162</td></tr></table>	EWSED01	35	0	0.2607	EWSED08 (Ref 1)	33	0.6	0.2238	EWSED09 (Ref 2)	19	1.8	0.1162
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gamma-chlordane	0.0036	High	< 0.00009	NA	0.00226	< 0.0000038	0.000004													
Indeno(1,2,3-cd)pyrene	1.94	High	0.22	Mid	0.6	0.000051 J	NA	Location Mean Survival (%) Mean Biomass (mg) Mean Dry Wt (mg) ** <table border="1"><tr><td>EWSED01</td><td>35</td><td>0</td><td>0.2607</td></tr><tr><td>EWSED08 (Ref 1)</td><td>33</td><td>0.6</td><td>0.2238</td></tr><tr><td>EWSED09 (Ref 2)</td><td>19</td><td>1.8</td><td>0.1162</td></tr></table>	EWSED01	35	0	0.2607	EWSED08 (Ref 1)	33	0.6	0.2238	EWSED09 (Ref 2)	19	1.8	0.1162
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EWSED09 (Ref 2)	19	1.8	0.1162																	
Lead	18.3	Low	17.2	Low	46.7	0.000115 U	0.0053													
Nickel	21.3	Mid	18.9	Mid	20.9	0.00944	0.0131	Location Mean Survival (%) Mean Biomass (mg) Mean Dry Wt (mg) ** <table border="1"><tr><td>EWSED01</td><td>35</td><td>0</td><td>0.2607</td></tr><tr><td>EWSED08 (Ref 1)</td><td>33</td><td>0.6</td><td>0.2238</td></tr><tr><td>EWSED09 (Ref 2)</td><td>19</td><td>1.8</td><td>0.1162</td></tr></table>	EWSED01	35	0	0.2607	EWSED08 (Ref 1)	33	0.6	0.2238	EWSED09 (Ref 2)	19	1.8	0.1162
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EWSED09 (Ref 2)	19	1.8	0.1162																	
Phenanthrene	0.111 U	NA	0.032	Low	0.24	0.000012 J	0.0046													
Pyrene	1.18	High	0.091	Mid	0.665	< 0.000042	0.00024	Location Mean Survival (%) Mean Biomass (mg) Mean Dry Wt (mg) ** <table border="1"><tr><td>EWSED01</td><td>35</td><td>0</td><td>0.2607</td></tr><tr><td>EWSED08 (Ref 1)</td><td>33</td><td>0.6</td><td>0.2238</td></tr><tr><td>EWSED09 (Ref 2)</td><td>19</td><td>1.8</td><td>0.1162</td></tr></table>	EWSED01	35	0	0.2607	EWSED08 (Ref 1)	33	0.6	0.2238	EWSED09 (Ref 2)	19	1.8	0.1162
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EWSED09 (Ref 2)	19	1.8	0.1162																	
Zinc	116	Low	115	Low	150	0.0101	0.0842													
Total PAHs*	NA	NA	1.9	NA	4.022	NA	NA	Location Mean Survival (%) Mean Biomass (mg) Mean Dry Wt (mg) ** <table border="1"><tr><td>EWSED01</td><td>35</td><td>0</td><td>0.2607</td></tr><tr><td>EWSED08 (Ref 1)</td><td>33</td><td>0.6</td><td>0.2238</td></tr><tr><td>EWSED09 (Ref 2)</td><td>19</td><td>1.8</td><td>0.1162</td></tr></table>	EWSED01	35	0	0.2607	EWSED08 (Ref 1)	33	0.6	0.2238	EWSED09 (Ref 2)	19	1.8	0.1162
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EWSED09 (Ref 2)	19	1.8	0.1162																	
Total Organic Carbon	NA	NA	59,400	NA	NA	NA	NA													
Acid Volatile Sulfides/Simultaneously Extracted Metals	NA	NA	0.089	NA	NA	NA	NA	Location Mean Survival (%) Mean Biomass (mg) Mean Dry Wt (mg) ** <table border="1"><tr><td>EWSED01</td><td>35</td><td>0</td><td>0.2607</td></tr><tr><td>EWSED08 (Ref 1)</td><td>33</td><td>0.6</td><td>0.2238</td></tr><tr><td>EWSED09 (Ref 2)</td><td>19</td><td>1.8</td><td>0.1162</td></tr></table>	EWSED01	35	0	0.2607	EWSED08 (Ref 1)	33	0.6	0.2238	EWSED09 (Ref 2)	19	1.8	0.1162
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EWSED08 (Ref 1)	33	0.6	0.2238																	
EWSED09 (Ref 2)	19	1.8	0.1162																	
Grain Size	NA	NA	See Table 7	NA	NA	NA	NA													

Table 49
Summary of Results for Wetland Sediment

Wetland Sediment (all samples from 0-0.5 ft bgs)							
Location	RI/FS Concentration Gradient (mg/kg DW)	2010 Analytical Results				Mean Bioassay Results***	
		2010 BERA Concentration Gradient (mg/kg DW)	Marine Sediment Benchmark (mg/kg DW)	Pore Water (mg/L)	Marine Surface Water Benchmark (mg/L)		
BERA Sample ID: EWSED02							
Wetland Sediment RI/FS sample ID: 2WSED03-003	Location represents high concentration of multiple COPECs, including PAHs and pesticides; mid concentrations of two PAHs and nickel; and low concentrations of copper, endrin ketone, lead and zinc. Several COPECs are below detection limit and not expected to be present.	Location represents high concentration of 1 PAH; mid concentrations of five PAHs; and low concentrations of several PAHs, arsenic, copper, lead, nickel, and zinc.					
2-Methylnaphthalene	0.173 U	NA	0.002 J / 0.0026 J	Low	0.070	0.000026 U	0.03
4,4'-DDT	0.00107 U	NA	< 0.00017 / < 0.00017	NA	0.00119	< 0.0000047 J	0.000001
Acenaphthene	0.173 U	NA	0.0018 J / 0.0013 J	Low	0.016	< 0.0000044	0.0404
Acenaphthylene	0.346	Mid	0.041 / 0.03	Low	0.044	< 0.0000034	NA
Anthracene	0.241	Mid	0.032 / 0.024	Low	0.0853	< 0.0000036	0.00018
Arsenic	0.4 U	NA	2.4 / 2.51	Low	8.2	0.0041 J	0.078
Benzo(a)anthracene	U	NA	< 0.043 J / < 0.00072	NA	0.261	< 0.0000026	NA
Benzo(a)pyrene	0.631	High	0.12 / 0.097	Mid	0.43	< 0.0000043	NA
Benzo(g,h,i)perylene	1.52	High	0.46 / 0.38	Mid	0.67	0.000012 J	NA
Chrysene	2.73	High	0.62 / 0.49	High	0.384	0.000049	NA
Copper	12.6	Low	13.3 / 14.6	Low	34	0.000342 U	0.0036
Dibenz(a,h)anthracene	2.83	High	0.11 / 0.094	Mid	0.0634	0.0000034 J	NA
Endrin Aldehyde	0.01	High	< 0.00012 / < 0.001 J	NA	0.00267	0.0000067 J	0.000002
Endrin Ketone	0.00619	Low	< 0.000093 / < 0.0011 J	NA	0.00267	< 0.0000013 J	0.000002
Fluoranthene	0.213 U	NA	0.023 / 0.019	Low	0.6	< 0.0000044	0.00296
Fluorene	0.135 U	NA	0.013 / 0.011	Low	0.019	< 0.0000038	0.05
gamma-chlordane	0.000862 U	NA	< 0.00009 / < 0.00009	NA	0.00226	< 0.0000013 J	0.000004
Indeno(1,2,3-cd)pyrene	1.59	High	0.19 / 0.16	Mid	0.6	0.0000062 J	NA
Lead	17.2	Low	12 / 14.7	Low	46.7	0.000113 U	0.0053
Nickel	20.9	Mid	15.6 / 17.3	Low	20.9	0.00486	0.0131
Phenanthrene	0.125 U	NA	0.016 / 0.014	Low	0.24	< 0.000005	0.0046
Pyrene	0.729	High	0.14 / 0.11	Mid	0.665	< 0.0000035	0.00024
Zinc	115	Low	70.1 / 86.1	Low	150	0.00135 U	0.0842
Total PAHs*	NA	NA	1.8/1.4	NA	4.022	NA	NA
Total Organic Carbon	NA	NA	24,100 / 30,500	NA	NA	NA	NA
Acid Volatile Sulfides/Simultaneously Extracted Metals	NA	NA	0.014	NA	NA	NA	NA
Grain Size	NA	NA	See Table 7	NA	NA	NA	NA

Polychaete - 28 day, *Neanthes arenaceodentata*

Survival: No statistically significant difference from reference locations.
Growth: No statistically significant difference from reference locations.

Location	Mean Survival (%)	Mean Biomass (mg)	Mean Dry Wt (mg) **
EWSED02	76	2.285	3.334
EWSED08 (Ref 1)	68	1.586	2.741
EWSED09 (Ref 2)	76	2.15	2.95

Amphipod - 28 day, *Leptochirus plumulosus*

Survival: No statistically significant difference from reference locations.
Growth: No statistically significant difference from reference locations.
Reproduction: Insufficient offspring for statistical analysis.

Location	Mean Survival (%)	Offspring (avg)	Mean Biomass (mg)	Mean Dry Wt (mg) **
EWSED02	58	0.2	0.2313	0.4916
EWSED08 (Ref 1)	33	0.6	0.2238	0.5988
EWSED09 (Ref 2)	19	1.8	0.1162	0.5035

Table 49
Summary of Results for Wetland Sediment

Wetland Sediment (all samples from 0-0.5 ft bgs)								
Location	RI/FS Concentration Gradient (mg/kg DW)	2010 Analytical Results					Mean Bioassay Results***	
		2010 BERA Concentration Gradient (mg/kg DW)		Marine Sediment Benchmark (mg/kg DW)	Pore Water (mg/L)	Marine Surface Water Benchmark (mg/L)		
BERA Sample ID: EWSED03								
Wetland Sediment RI/FS sample ID: NF4SE13-013	Location represents high concentrations of arsenic, copper, nickel, and zinc; mid concentrations of 4,4'-DDT, 5 PAHs and lead, and pyrene; and low concentrations of 2 PAHs. Several COPECs are below detection limit and not expected to be present.	Location represents high concentrations of arsenic, copper, nickel, and zinc; mid concentrations of 4,4'-DDT, 2 PAHs and lead; and low concentrations of 12 PAHs and endrin aldehyde.						
2-Methylnaphthalene	0.0122	Low	0.0068	Low	0.070	0.000022 U	0.03	
4,4'-DDT	0.00254	Mid	0.0028	Mid	0.00119	< 0.000016 J	0.000001	
Acenaphthene	0.0103 U	NA	0.0043 J	Low	0.016	< 0.0000047	0.0404	
Acenaphthylene	0.0117 U	NA	0.0032 J	Low	0.044	< 0.0000036	NA	
Anthracene	0.0126	Low	0.005	Low	0.0853	0.000013 J	0.00018	
Arsenic	12.8	High	5.36	High	8.2	0.0019 J	0.078	
Benzo(a)anthracene	0.0106 U	NA	0.024	Low	0.261	< 0.0000028	NA	
Benzo(a)pyrene	0.0105 U	NA	0.028	Low	0.43	< 0.0000046	NA	
Benzo(g,h,i)perylene	0.133	Mid	0.058	Low	0.67	< 0.0000031	NA	
Chrysene	0.0904	Mid	0.064	Mid	0.384	< 0.0000036	NA	
Copper	35.7	High	25	High	34	0.00456	0.0036	
Dibenz(a,h)anthracene	0.0555	Low	0.0074	Low	0.0634	< 0.0000027	NA	
Endrin Aldehyde	0.000403 U	NA	0.00027 J	Low	0.00267	0.000015 J	0.000002	
Endrin Ketone	0.000505 U	NA	< 0.00011 J	NA	0.00267	0.000007 J	0.000002	
Fluoranthene	0.0117 U	NA	0.052	Low	0.6	< 0.0000047	0.00296	
Fluorene	0.0102 U	NA	0.0048	Low	0.019	< 0.000004	0.05	
gamma-chlordane	0.000265 U	NA	< 0.00009	NA	0.00226	< 0.000016 J	0.000004	
Indeno(1,2,3-cd)pyrene	0.0951	Mid	0.034	Low	0.6	< 0.0000028	NA	
Lead	64.7	Mid	48.4	Mid	46.7	0.000425 U	0.0053	
Nickel	27.7	High	21.7	High	20.9	0.00749 U	0.0131	
Phenanthrene	0.0898	Mid	0.049	Low	0.24	0.0000053 U	0.0046	
Pyrene	0.109	Mid	0.069	Mid	0.665	< 0.0000037	0.00024	
Zinc	903	High	585	High	150	0.0413	0.0842	
Total PAHs*	NA	NA	0.4	NA	4.022	NA	NA	
Total Organic Carbon	NA	NA	18,200	NA	NA	NA	NA	
Acid Volatile Sulfides/Simultaneously Extracted Metals	NA	NA	0.002	NA	NA	NA	NA	
Grain Size	NA	NA	See Table 7	NA	NA	NA	NA	

Polychaete - 28 day, *Neanthes arenaceodentata*

Survival: No statistically significant difference from reference locations.
Growth: No statistically significant difference from reference locations.

Location	Mean Survival (%)	Mean Biomass (mg)	Mean Dry Wt (mg) **
EWSED03	84	2.004	2.421
EWSED08 (Ref 1)	68	1.586	2.741
EWSED09 (Ref 2)	76	2.15	2.95

Amphipod - 28 day, *Leptocheirus plumulosus*

Survival: No statistically significant difference from reference locations.
Growth: No statistically significant difference from reference locations.
Reproduction: Insufficient offspring for statistical analysis.

Location	Mean Survival (%)	Offspring (avg)	Mean Biomass (mg)	Mean Dry Wt (mg) **
EWSED03	20	0	0.2015	0.4202
EWSED08 (Ref 1)	33	0.6	0.2238	0.5988
EWSED09 (Ref 2)	19	1.8	0.1162	0.5035

Table 49
Summary of Results for Wetland Sediment

Wetland Sediment (all samples from 0-0.5 ft bgs)																								
Location	RI/FS Concentration Gradient (mg/kg DW)	2010 Analytical Results					Mean Bioassay Results***																	
		2010 BERA Concentration Gradient (mg/kg DW)	Marine Sediment Benchmark (mg/kg DW)	Pore Water (mg/L)	Marine Surface Water Benchmark (mg/L)																			
BERA Sample ID: EWSED04 Wetland Sediment RI/FS sample ID: 2WSD17-17	Location represents high concentrations of 8 PAHs, arsenic, and lead; mid concentrations of 4 PAHs, copper, lead, and zinc; and low concentrations of 1 PAH and nickel. Organochlorine pesticides are below detection limit and not expected to be present.	Location represents high concentration of arsenic; mid concentrations of 4 PAHs, copper, lead, and zinc; and low concentrations of 10 PAHs and nickel.					<i>Polychaete - 28 day, Neanthes arenaceodentata</i> Survival: No statistically significant difference from reference locations. Growth: No statistically significant difference from reference locations.																	
2-Methylnaphthalene	0.053	Low	0.0037 J	Low	0.070	0.000046	0.03	<table border="1"> <thead> <tr> <th>Location</th><th>Mean Survival (%)</th><th>Mean Biomass (mg)</th><th>Mean Dry Wt (mg) **</th></tr> </thead> <tbody> <tr> <td>EWSED04</td><td>84</td><td>2.53</td><td>2.988</td></tr> <tr> <td>EWSED08 (Ref 1)</td><td>68</td><td>1.586</td><td>2.741</td></tr> <tr> <td>EWSED09 (Ref 2)</td><td>76</td><td>2.15</td><td>2.95</td></tr> </tbody> </table>	Location	Mean Survival (%)	Mean Biomass (mg)	Mean Dry Wt (mg) **	EWSED04	84	2.53	2.988	EWSED08 (Ref 1)	68	1.586	2.741	EWSED09 (Ref 2)	76	2.15	2.95
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4,4'-DDT	0.000829 U	NA	NA	NA	0.00119	NA	0.000001																	
Acenaphthene	0.133	Mid	0.0026 J	Low	0.016	< 0.0000085 J	0.0404	<table border="1"> <thead> <tr> <th>Location</th><th>Mean Survival (%)</th><th>Mean Biomass (mg)</th><th>Mean Dry Wt (mg) **</th></tr> </thead> <tbody> <tr> <td>EWSED04</td><td>84</td><td>2.53</td><td>2.988</td></tr> <tr> <td>EWSED08 (Ref 1)</td><td>68</td><td>1.586</td><td>2.741</td></tr> <tr> <td>EWSED09 (Ref 2)</td><td>76</td><td>2.15</td><td>2.95</td></tr> </tbody> </table>	Location	Mean Survival (%)	Mean Biomass (mg)	Mean Dry Wt (mg) **	EWSED04	84	2.53	2.988	EWSED08 (Ref 1)	68	1.586	2.741	EWSED09 (Ref 2)	76	2.15	2.95
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Benzo(a)pyrene	0.618	High	0.04	Low	0.43	< 0.0000043	NA																	
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EWSED09 (Ref 2)	76	2.15	2.95																					
Acid Volatile Sulfides/Simultaneously Extracted Metals	NA	NA	0.039	NA	NA	NA	NA																	
Grain Size	NA	NA	See Table 7	NA	NA	NA	NA	<table border="1"> <thead> <tr> <th>Location</th><th>Mean Survival (%)</th><th>Mean Biomass (mg)</th><th>Mean Dry Wt (mg) **</th></tr> </thead> <tbody> <tr> <td>EWSED04</td><td>84</td><td>2.53</td><td>2.988</td></tr> <tr> <td>EWSED08 (Ref 1)</td><td>68</td><td>1.586</td><td>2.741</td></tr> <tr> <td>EWSED09 (Ref 2)</td><td>76</td><td>2.15</td><td>2.95</td></tr> </tbody> </table>	Location	Mean Survival (%)	Mean Biomass (mg)	Mean Dry Wt (mg) **	EWSED04	84	2.53	2.988	EWSED08 (Ref 1)	68	1.586	2.741	EWSED09 (Ref 2)	76	2.15	2.95
Location	Mean Survival (%)	Mean Biomass (mg)	Mean Dry Wt (mg) **																					
EWSED04	84	2.53	2.988																					
EWSED08 (Ref 1)	68	1.586	2.741																					
EWSED09 (Ref 2)	76	2.15	2.95																					

Table 49
Summary of Results for Wetland Sediment

Wetland Sediment (all samples from 0-0.5 ft bgs)							
Location	RI/FS Concentration Gradient (mg/kg DW)	2010 Analytical Results				Mean Bioassay Results***	
		2010 BERA Concentration Gradient (mg/kg DW)	Marine Sediment Benchmark (mg/kg DW)	Pore Water (mg/L)	Marine Surface Water Benchmark (mg/L)		
BERA Sample ID: EWSED05							
Wetland Sediment RI/FS sample ID: NB4SE08-008	Location represents high concentrations of 8 PAHs, 4,4'-DDT, copper, and zinc; mid concentrations of 4 PAHs, arsenic, and lead; and low concentrations of 2 PAHs, endrin aldehyde, and nickel. Two organochlorine pesticides are below detection limit and not expected to be present.	Location represents high concentrations of 8 PAHs, copper, endrin aldehyde, lead, and zinc; mid concentrations of 4 PAHs; and low concentrations of 2 PAHs and nickel.					
2-Methylnaphthalene	0.0396	Low	0.02	Low	0.070	NA	NA
4,4'-DDT	0.00922	High	< 0.019 J	NA	0.00119	NA	NA
Acenaphthene	0.113	Mid	0.075	Mid	0.016	NA	NA
Acenaphthylene	0.0291	Low	0.018	Low	0.044	NA	NA
Anthracene	0.188	Mid	0.078	Mid	0.0853	NA	NA
Arsenic	3.53	Mid	3.06	Mid	8.2	NA	NA
Benzo(a)anthracene	0.993	High	0.55	High	0.261	NA	NA
Benzo(a)pyrene	1.3	High	0.79	High	0.43	NA	NA
Benzo(g,h,i)perylene	0.862	High	0.68	High	0.67	NA	NA
Chrysene	1.27	High	0.77	High	0.384	NA	NA
Copper	39.6	High	28.9	High	34	NA	NA
Dibenz(a,h)anthracene	0.337	Mid	0.14	Mid	0.0634	NA	NA
Endrin Aldehyde	0.00452	Low	0.0014 J	High	0.00267	NA	NA
Endrin Ketone	0.000458 U	NA	< 0.001 J	NA	0.00267	NA	NA
Fluoranthene	2.17	High	1.3	High	0.6	NA	NA
Fluorene	0.127	Mid	0.065	Mid	0.019	NA	NA
gamma-chlordane	0.00024 U	NA	< 0.00009	NA	0.00226	NA	NA
Indeno(1,2,3-cd)pyrene	1.1	High	0.79	High	0.6	NA	NA
Lead	88.1	Mid	76.1	High	46.7	NA	NA
Nickel	10.9	Low	14.4	Low	20.9	NA	NA
Phenanthrene	1.3	High	0.78	High	0.24	NA	NA
Pyrene	1.64	High	1.1	High	0.665	NA	NA
Zinc	601	High	595	High	150	NA	NA
Total PAHs*	NA	NA	7.2	NA	4.022	NA	NA
Total Organic Carbon	NA	NA	18,100	NA	NA	NA	NA
Acid Volatile Sulfides/Simultaneously Extracted Metals	NA	NA	0.002	NA	NA	NA	NA
Grain Size	NA	NA	See Table 7	NA	NA	NA	NA

Polychaete - 28 day, *Neanthes arenaceodentata*

Survival: No statistically significant difference from reference locations.
Growth: No statistically significant difference from reference locations.

Location	Mean Survival (%)	Mean Biomass (mg)	Mean Dry Wt (mg) **
EWSED05	72	2.248	3.285
EWSED08 (Ref 1)	68	1.586	2.741
EWSED09 (Ref 2)	76	2.15	2.95

Amphipod - 28 day, *Leptocheirus plumulosus*

Survival: No statistically significant difference from reference locations.
Growth: No statistically significant difference from reference locations.
Reproduction: Insufficient offspring for statistical analysis.

Location	Mean Survival (%)	Offspring (avg)	Mean Biomass (mg)	Mean Dry Wt (mg) **
EWSED05	38	0	0.1614	0.4109
EWSED08 (Ref 1)	33	0.6	0.2238	0.5988
EWSED09 (Ref 2)	19	1.8	0.1162	0.5035

Table 49
Summary of Results for Wetland Sediment

Wetland Sediment (all samples from 0-0.5 ft bgs)								
Location	RI/FS Concentration Gradient (mg/kg DW)		2010 Analytical Results				Mean Bioassay Results***	
			2010 BERA Concentration Gradient (mg/kg DW)	Marine Sediment Benchmark (mg/kg DW)	Pore Water (mg/L)	Marine Surface Water Benchmark (mg/L)		
BERA Sample ID: EWSED06 Wetland Sediment RI/FS sample ID: SPSE03 (Location from Pond)	Location represents high concentration of zinc; mid concentrations of arsenic copper, lead, nickel, benzo(g,h,i)perylene; and low concentrations of 4,4'-DDT, chrysene, and pyrene.	Location represents high concentrations of copper, nickel, and zinc; mid concentrations of 4,4'-DDT, arsenic, and lead; and low concentrations of 15 PAHs.					Polychaete - 28 day, <i>Neanthes arenaceodentata</i> Survival: No statistically significant difference from reference locations. Growth: No statistically significant difference from reference locations.	
2-Methylnaphthalene	NA	NA	0.0016 J	Low	0.070	0.000019 U	0.03	
4,4'-DDT	0.00157	Low	0.0012	Mid	0.00119	< 0.00000058	0.000001	
Acenaphthene	NA	NA	0.0013 J	Low	0.016	0.0000091 J	0.0404	
Acenaphthylene	NA	NA	0.0008 J	Low	0.044	< 0.0000035	NA	Amphipod - 28 day, <i>Leptocheirus plumulosus</i> Survival: No statistically significant difference from reference locations. Growth: No statistically significant difference from reference locations. Reproduction: Insufficient offspring for statistical analysis.
Anthracene	NA	NA	0.0011 J	Low	0.0853	< 0.0000037	0.00018	
Arsenic	5.01	Mid	3.23	Mid	8.2	0.00177 J	0.078	
Benzo(a)anthracene	NA	NA	0.0069	Low	0.261	0.0000095 U	NA	
Benzo(a)pyrene	NA	NA	0.01	Low	0.43	0.0000097 U	NA	Location Mean Survival (%) Mean Biomass (mg) Mean Dry Wt (mg) ** EWSED06 80 1.78 2.36 EWSED08 (Ref 1) 68 1.586 2.741 EWSED09 (Ref 2) 76 2.15 2.95
Benzo(g,h,i)perylene	0.135	Mid	0.019	Low	0.67	0.000023 U	NA	
Chrysene	0.0257	Low	0.014	Low	0.384	0.0000096 U	NA	
Copper	26.8	Mid	28.1	High	34	0.00702	0.0036	
Dibenz(a,h)anthracene	NA	NA	0.0026 J	Low	0.0634	0.000015 U	NA	Location Mean Survival (%) Mean Biomass (mg) Mean Dry Wt (mg) ** EWSED06 13 0 0.05225 0.3764 EWSED08 (Ref 1) 33 0.6 0.2238 0.5988 EWSED09 (Ref 2) 19 1.8 0.1162 0.5035
Endrin Aldehyde	NA	NA	< 0.00012	NA	0.00267	< 0.00000046	0.000002	
Endrin Ketone	NA	NA	< 0.000093	NA	0.00267	< 0.00000066	0.000002	
Fluoranthene	NA	NA	0.02	Low	0.6	< 0.0000045	0.00296	
Fluorene	NA	NA	0.001 J	Low	0.019	0.0000091 J	0.05	Location Mean Survival (%) Offspring (avg) Mean Biomass (mg) Mean Dry Wt (mg) ** EWSED06 13 0 0.05225 0.3764 EWSED08 (Ref 1) 33 0.6 0.2238 0.5988 EWSED09 (Ref 2) 19 1.8 0.1162 0.5035
gamma-chlordane	NA	NA	0.00025 J	Low	0.00226	< 0.00000032	0.000004	
Indeno(1,2,3-cd)pyrene	NA	NA	0.019	Low	0.6	0.000014 U	NA	
Lead	30.5	Mid	32.9	Mid	46.7	0.000443 U	0.0053	
Nickel	20.6	Mid	22.5	High	20.9	0.00915	0.0131	Total Organic Carbon Acid Volatile Sulfides/Simultaneously Extracted Metals Grain Size
Phenanthrene	NA	NA	0.013	Low	0.24	0.0000068 J	0.0046	
Pyrene	0.0265	Low	0.021	Low	0.665	< 0.0000036	0.00024	
Zinc	999	High	959	High	150	0.626	0.0842	
Total PAHs*	NA	NA	0.13	NA	4.022	NA	NA	
Total Organic Carbon	NA	NA	21,500	NA	NA	NA	NA	
Acid Volatile Sulfides/Simultaneously Extracted Metals	NA	NA	0.084	NA	NA	NA	NA	
Grain Size	NA	NA	See Table 7	NA	NA	NA	NA	

Table 49
Summary of Results for Wetland Sediment

Wetland Sediment (all samples from 0-0.5 ft bgs)								
Location	RI/FS Concentration Gradient (mg/kg DW)		2010 Analytical Results				Mean Bioassay Results***	
			2010 BERA Concentration Gradient (mg/kg DW)	Marine Sediment Benchmark (mg/kg DW)	Pore Water (mg/L)	Marine Surface Water Benchmark (mg/L)		
BERA Sample ID: EWSED07	Location represents mid concentrations of 8 PAHs, copper, lead, nickel, and zinc; and low concentrations of 3 PAHs. Organochlorine pesticides were not detected in this sample and are assumed not to be present.		Location represents high concentrations of arsenic, copper, and nickel; mid concentrations of 8 PAHs, lead, and zinc; and low concentrations of 6 PAHs.				Polychaete - 28 day, <i>Neanthes arenaceodentata</i> Survival: No statistically significant difference from reference locations. Growth: No statistically significant difference from reference locations.	
Wetland Sediment RI/FS sample ID: 4WSED3								
2-Methylnaphthalene	0.00936 U	NA	0.0053	Low	0.070	0.000013 U	0.03	
4,4'-DDT	0.00498 U	NA	NA	NA	0.00119	NA	0.000001	
Acenaphthene	0.016	Low	0.009	Low	0.016	< 0.000012	0.0404	
Acenaphthylene	0.00746 U	NA	0.0091	Low	0.044	0.000032 J	NA	
Anthracene	0.033	Low	0.027	Low	0.0853	0.000066	0.00018	
Arsenic	0.12 U	NA	5.94	High	8.2	0.00063 J	0.078	
Benzo(a)anthracene	0.199	Mid	0.09	Mid	0.261	< 0.0000067	NA	
Benzo(a)pyrene	0.227	Mid	0.087	Mid	0.43	< 0.000012	NA	
Benzo(g,h,i)perylene	0.209	Mid	0.1	Mid	0.67	< 0.0000075	NA	
Chrysene	0.094	Mid	0.14	Mid	0.384	< 0.0000088	NA	
Copper	27.6	Mid	30.7	High	34	0.00303	0.0036	
Dibenz(a,h)anthracene	0.00635 U	NA	0.019	Low	0.0634	< 0.0000065	NA	
Endrin Aldehyde	0.00579 U	NA	NA	NA	0.00267	NA	0.000002	
Endrin Ketone	0.00527 U	NA	NA	NA	0.00267	NA	0.000002	
Fluoranthene	0.176	Mid	0.26	Mid	0.6	< 0.000012	0.00296	
Fluorene	0.015	Low	0.016	Low	0.019	< 0.0000098	0.05	
gamma-chlordane	0.00423 U	NA	NA	NA	0.00226	NA	0.000004	
Indeno(1,2,3-cd)pyrene	0.408	Mid	0.1	Mid	0.6	< 0.0000067	NA	
Lead	29.3	Mid	32.7	Mid	46.7	0.000184	0.0053	
Nickel	19.6	Mid	20.1	High	20.9	0.00917	0.0131	
Phenanthrene	0.135	Mid	0.15	Mid	0.24	< 0.000013	0.0046	
Pyrene	0.188	Mid	0.19	Mid	0.665	< 0.000009	0.00024	
Zinc	290	Mid	318	Mid	150	0.0599	0.0842	
Total PAHs*	NA	NA	1.2	NA	4.022	NA	NA	
Total Organic Carbon	NA	NA	23,900	NA	NA	NA	NA	
Acid Volatile Sulfides/Simultaneously Extracted Metals	NA	NA	0.005	NA	NA	NA	NA	
Grain Size	NA	NA	See Table 7	NA	NA	NA	NA	

Table 49
Summary of Results for Wetland Sediment

Wetland Sediment (all samples from 0-0.5 ft bgs)								
Location	RI/FS Concentration Gradient (mg/kg DW)		2010 Analytical Results				Mean Bioassay Results***	
			2010 BERA Concentration Gradient (mg/kg DW)	Marine Sediment Benchmark (mg/kg DW)	Pore Water (mg/L)	Marine Surface Water Benchmark (mg/L)		
BERA Sample ID: EWSED08	Location represents a reference/background location not impacted by site activities, but with similar physical attributes.		Location represents mid concentration of 4,4'-DDT; and low concentrations of PAHs and metals.				Polychaete - 28 day, <i>Neanthes arenaceodentata</i>	
Wetland Sediment Reference Location near RI Sample Location 3WSED6								
2-Methylnaphthalene	NA	NA	0.001 J	Low	0.070	0.0000083 U	0.03	Amphipod - 28 day, <i>Leptocheirus plumulosus</i>
4,4'-DDT	NA	NA	0.00140	Mid	0.00119	0.000003 J	0.000001	
Acenaphthene	NA	NA	< 0.00088	NA	0.016	< 0.000005	0.0404	
Acenaphthylene	NA	NA	< 0.00069	NA	0.044	< 0.0000039	NA	
Anthracene	NA	NA	0.001 J	Low	0.0853	< 0.0000041	0.00018	
Arsenic	NA	NA	2.92	Low	8.2	0.00576 J	0.078	
Benzo(a)anthracene	NA	NA	0.011	Low	0.261	< 0.000003	NA	
Benzo(a)pyrene	NA	NA	0.014	Low	0.43	< 0.0000049	NA	
Benzo(g,h,i)perylene	NA	NA	0.017	Low	0.67	< 0.0000033	NA	
Chrysene	NA	NA	0.017	Low	0.384	< 0.0000039	NA	
Copper	NA	NA	15.8	Low	34	0.00137	0.0036	
Dibenz(a,h)anthracene	NA	NA	0.003 J	Low	0.0634	< 0.0000029	NA	
Endrin Aldehyde	NA	NA	0.00052 J	Low	0.00267	0.0000026 J	0.000002	
Endrin Ketone	NA	NA	< 0.00012	NA	0.00267	< 0.000007	0.000002	
Fluoranthene	NA	NA	0.031	Low	0.6	< 0.000005	0.00296	
Fluorene	NA	NA	0.00092 J	Low	0.019	< 0.0000044	0.05	
gamma-chlordane	NA	NA	< 0.00012 J	NA	0.00226	0.0000033 J	0.000004	
Indeno(1,2,3-cd)pyrene	NA	NA	0.019	Low	0.6	< 0.000003	NA	
Lead	NA	NA	19.8	Low	46.7	0.00128 U	0.0053	
Nickel	NA	NA	16.3	Low	20.9	0.0142	0.0131	
Phenanthrene	NA	NA	0.015	Low	0.24	< 0.0000057	0.0046	
Pyrene	NA	NA	0.027	Low	0.665	< 0.000004	0.00024	
Zinc	NA	NA	94.3	Low	150	0.039	0.0842	
Total PAHs*	NA	NA	0.16	NA	4.022	NA	NA	
Total Organic Carbon	NA	NA	46,800	NA	NA	NA	NA	
Acid Volatile Sulfides/Simultaneously Extracted Metals	NA	NA	6.4	NA	NA	NA	NA	
Grain Size	NA	NA	See Table 7	NA	NA	NA	NA	

Table 49
Summary of Results for Wetland Sediment

Wetland Sediment (all samples from 0-0.5 ft bgs)							
Location	RI/FS Concentration Gradient (mg/kg DW)	2010 Analytical Results				Mean Bioassay Results***	
		2010 BERA Concentration Gradient (mg/kg DW)		Marine Sediment Benchmark (mg/kg DW)	Pore Water (mg/L)		
BERA Sample ID: EWSED09							
Wetland Sediment Reference Location near RI Sample Location 2WSED11	Location represents a reference/background location not impacted by site activities, but with similar physical attributes.	Location represents mid concentration of 4,4'-DDT; and low concentrations of PAHs and metals.					
2-Methylnaphthalene	NA	NA	0.00061 J	Low	0.070	0.000018 U	0.03
4,4'-DDT	NA	NA	0.00160	Mid	0.00119	< 0.0000014 J	0.000001
Acenaphthene	NA	NA	< 0.00076	NA	0.016	< 0.0000044	0.0404
Acenaphthylene	NA	NA	< 0.00059	NA	0.044	< 0.0000034	NA
Anthracene	NA	NA	< 0.00058	NA	0.0853	< 0.0000036	0.00018
Arsenic	NA	NA	2.58	Low	8.2	0.00171 J	0.078
Benzo(a)anthracene	NA	NA	0.0024 J	Low	0.261	< 0.0000026	NA
Benzo(a)pyrene	NA	NA	0.0027 J	Low	0.43	< 0.0000043	NA
Benzo(g,h,i)perylene	NA	NA	0.0032 J	Low	0.67	< 0.0000029	NA
Chrysene	NA	NA	0.004 J	Low	0.384	< 0.0000034	NA
Copper	NA	NA	11.7	Low	34	0.000761 U	0.0036
Dibenz(a,h)anthracene	NA	NA	< 0.0008	NA	0.0634	< 0.0000025	NA
Endrin Aldehyde	NA	NA	< 0.00012	NA	0.00267	< 0.0000033 J	0.000002
Endrin Ketone	NA	NA	< 0.000093	NA	0.00267	< 0.0000011	0.000002
Fluoranthene	NA	NA	0.0055	Low	0.6	< 0.0000044	0.00296
Fluorene	NA	NA	< 0.00061	NA	0.019	< 0.0000038	0.05
gamma-chlordane	NA	NA	< 0.00023 J	NA	0.00226	< 0.000016 J	0.000004
Indeno(1,2,3-cd)pyrene	NA	NA	0.0032 J	Low	0.6	< 0.0000026	NA
Lead	NA	NA	17.4	Low	46.7	0.000236 U	0.0053
Nickel	NA	NA	16.5	Low	20.9	0.00669	0.0131
Phenanthrene	NA	NA	0.0024 J	Low	0.24	< 0.000005	0.0046
Pyrene	NA	NA	0.0044 J	Low	0.665	< 0.0000035	0.00024
Zinc	NA	NA	68.3	Low	150	0.00124 U	0.0842
Total PAHs*	NA	NA	0.03	NA	4.022	NA	NA
Total Organic Carbon	NA	NA	11,200	NA	NA	NA	NA
Acid Volatile Sulfides/Simultaneously Extracted Metals	NA	NA	0.062	NA	NA	NA	NA
Grain Size	NA	NA	See Table 7	NA	NA	NA	NA

Notes:
bgs - below ground surface
DW - dry weight
J - estimated value
NA - not analyzed, available, or applicable
U - not detected

High = High concentration within the gradient
Mid = Mid concentration within the gradient
Low = Low concentration within the gradient

Bolding indicates that the detected concentration is greater than the ecological screening benchmark (Table 6 Final BERA WP & SAP; URS, 2010a)

Results for duplicate samples are separated by a "/".

* Total PAHs represents the summation of the PAH COPECs detected in sediment from the 2010 BERA data.

** The primary growth endpoint Dry Wt is the dry weight of surviving organisms divided by the number of surviving organisms. Biomass (the dry weight of surviving organisms divided by initial number of organisms) is not routinely applied to sediment testing (EPA, 2000).

***Appendix B of the BERA shows all of the individual replicates for each test chamber.
This table presents the mean bioassay results for each sample based on five replicates.

Table 50
Summary of Toxicity Testing for Soil and Sediment

North Area Soils		21-day <i>Neanthes arenaceodentata</i> : Mean Survival and Growth						
		Mean Survival (%)	Mean Growth - Biomass (mg)	Mean Growth - Dry Wt (mg)**				
Lab Control for North Area Soils	100	2.058	2.058					
Site Locations:								
BERA Sample ID: NAS01	76	0.6648	0.9817					
BERA Sample ID: NAS02	88	2.123	2.407					
BERA Sample ID: NAS03	96	2.603	2.704					
BERA Sample ID: NAS04	84	4.52	5.423					
BERA Sample ID: NAS05	76	1.998	2.693					
BERA Sample ID: NAS06	88	1.648	1.894					
North Area Reference Locations:								
BERA Sample ID: NAS07	92	1.533	1.679					
BERA Sample ID: NAS08	64	0.688	1.008					
BERA Sample ID: NAS09	60	0.5512	0.9815					
Wetland Sediments		28-day <i>Neanthes arenaceodentata</i> : Mean Survival and Growth		28-day <i>Leptocheirus plumulosus</i> : Mean Survival, Growth, and Reproduction				
		Mean Survival (%)	Mean Growth - Biomass (mg)	Mean Growth - Dry Wt (mg)**	Mean Survival (%)	Mean Offspring	Mean Growth - Biomass (mg)	Mean Growth - Dry Wt (mg)**
Lab Control *	96	4.073	4.28		81.5	5.3	0.6773	0.8304
Site Locations:								
BERA Sample ID: EWSED01	96	3.073	3.234		35	0	0.2607	0.6566
BERA Sample ID: EWSED02	76	2.285	3.334		58	0.2	0.2313	0.4916
BERA Sample ID: EWSED03	84	2.004	2.421		20	0	0.2015	0.4202
BERA Sample ID: EWSED04	84	2.53	2.988		23.75	0	0.1518	0.529
BERA Sample ID: EWSED05	72	2.248	3.285		38	0	0.1614	0.4109
BERA Sample ID: EWSED06	80	1.78	2.36		13	0	0.05525	0.3764
BERA Sample ID: EWSED07	72	2.451	3.371		30	0.8	0.124	0.3924
Wetland Sediment Reference Locations:								
BERA Sample ID: EWSED08	68	1.586	2.741		33	0.6	0.2238	0.5988
BERA Sample ID: EWSED09	76	2.15	2.95		19	1.8	0.1162	0.5035
Intracoastal Waterway Sediments		28-day <i>Neanthes arenaceodentata</i> : Mean Survival and Growth		28-day <i>Leptocheirus plumulosus</i> : Mean Survival, Growth, and Reproduction				
		Mean Survival (%)	Mean Growth - Biomass (mg)	Mean Growth - Dry Wt (mg)**	Mean Survival (%)	Mean Offspring	Mean Growth - Biomass (mg)	Mean Growth - Dry Wt (mg)**
Lab Control *	96	4.073	4.28		81.5	5.3	0.6773	0.8304
Site Locations:								
BERA Sample ID: EIWSED01	92	4.412	4.857		41	0.6	0.2229	0.5559
BERA Sample ID: EIWSED02	80	4.984	6.614		64	1.8	0.3463	0.5576
BERA Sample ID: EIWSED03	92	4.993	5.491		39	1.2	0.237	0.5504
BERA Sample ID: EIWSED04	100	6.026	6.026		42	0.6	0.2092	0.4841
BERA Sample ID: EIWSED05	100	4.119	4.119		44	0.6	0.2463	0.5446
Intracoastal Sediment Reference Locations:								
BERA Sample ID: EIWSED06	100	4.784	4.784		42	1.2	0.19	0.4034
BERA Sample ID: EIWSED07	92	4.842	5.283		64	0	0.2475	0.3877

Appendix B of the BERA shows all of the individual replicates for each test chamber. This table presents the mean endpoints for each sample based on five replicates.

* Average of Lab Control 1 and 2

**The primary growth endpoint Dry Wt is the dry weight of surviving organisms divided by the number of surviving organisms. Biomass (the dry weight of surviving organisms divided by initial number of organisms) is not routinely applied to sediment testing (EPA, 2000).

Table 51
Summary of Results for North Area Soil

North Area Soil							Mean Bioassay Results**			
Location	RI/FS Concentration Gradient (mg/kg DW)		2010 BERA Concentration Gradient (mg/kg DW)		Soil Benchmark (mg/kg DW)	Marine Sediment Benchmark (mg/kg DW)	Mean Bioassay Results**			
BERA Sample ID: NAS01 North Soil Area RI/FS Sample ID:SB202	Location represents high concentrations of barium, chromium, copper, and zinc. 4,4'-DDT and Aroclor-1254 are below detection limits and not expected to be present.		Location represents high concentrations of chromium, copper, and zinc; and mid concentration of barium.				Polychaete - 21 day, <i>Neanthes arenaceodentata</i> Survival: No statistically significant difference from reference locations. Growth: No statistically significant difference from reference locations.			
4,4'-DDT	0.00282 U	NA	NA	NA	NA	0.00119				
Aroclor-1254	0.013 U	NA	NA	NA	500	0.0227				
Barium	476	High	272	Mid	330	NA				
Chromium	128	High	97.3	High	0.4	81				
Copper	200	High	221	High	61	34				
Zinc	5,640	High	5,770	High	120	150				
BERA Sample ID: NAS02 North Soil Area RI/FS Sample ID:SB204	Location represents high concentrations of 4,4'-DDT and Aroclor-1254; mid concentrations of chromium, copper, and zinc; and low concentration of barium. Sample from 0-2 ft bgs.		Location represents mid concentrations of barium, chromium, copper, and zinc; and low concentrations of 4,4'-DDT and Aroclor-1254.				Polychaete - 21 day, <i>Neanthes arenaceodentata</i> Survival: No statistically significant difference from reference locations. Growth: No statistically significant difference from reference locations.			
4,4'-DDT	0.395	High	0.0075 J / 0.015 J	Low	NA	0.00119				
Aroclor-1254	6.35	High	0.093 J / 0.16 J	Low	500	0.0227				
Barium	67.7	Low	163 / 261	Mid	330	NA				
Chromium	22.8	Mid	27.2 / 23.1	Mid	0.4	81				
Copper	92.3	Mid	26 / 24.9	Mid	61	34				
Zinc	134	Mid	296 JH / 307 J	Mid	120	150				
BERA Sample ID: NAS03 North Soil Area RI/FS Sample ID:SB206	Location represents high concentration of barium; mid concentrations of chromium, copper, and zinc; and low concentration of 4,4'-DDT. Aroclor-1254 is below detection limits and not expected to be present.		Location represents mid concentrations of barium, copper, and zinc; and low concentrations of chromium and 4,4'-DDT.				Polychaete - 21 day, <i>Neanthes arenaceodentata</i> Survival: No statistically significant difference from reference locations. Growth: No statistically significant difference from reference locations.			
4,4'-DDT	0.00445	Low	0.0078	Low	NA	0.00119				
Aroclor-1254	0.011 U	NA	NA	NA	500	0.0227				
Barium	426	High	190	Mid	330	NA				
Chromium	23.1	Mid	15.4	Low	0.4	81				
Copper	30.7	Mid	22.9	Mid	61	34				
Zinc	398	Mid	307 J	Mid	120	150				

Table 51
Summary of Results for North Area Soil

North Area Soil							Mean Bioassay Results**			
Location	RI/FS Concentration Gradient (mg/kg DW)		2010 BERA Concentration Gradient (mg/kg DW)		Soil Benchmark (mg/kg DW)	Marine Sediment Benchmark (mg/kg DW)	Mean Bioassay Results**			
BERA Sample ID: NAS04 North Soil Area RI/FS Sample ID:NE4SB11	Location represents mid concentrations of barium, copper, and zinc; and low concentrations of chromium and Aroclor-1254. 4,4'-DDT is below detection limits and not expected to be present.		Location represents high concentration of barium; mid concentration of zinc; and low concentrations of chromium, copper, and Aroclor-1254.				Polychaete - 21 day, <i>Neanthes arenaceodentata</i> Survival: No statistically significant difference from reference locations. Growth: No statistically significant difference from reference locations.			
4,4'-DDT	0.000148 U	NA	NA	NA	NA	0.00119				
Aroclor-1254	0.0122	Low	0.01	Low	500	0.0227				
Barium	153	Mid	502	High	330	NA				
Chromium	11.5	Low	7.86	Low	0.4	81				
Copper	27.4	Mid	10.8	Low	61	34				
Zinc	107	Mid	321 J	Mid	120	150				
BERA Sample ID: NAS05 North Soil Area RI/FS Sample ID:NE3SB09	Location represents mid concentrations of barium, chromium, copper, and zinc; and low concentration of 4,4'-DDT. Aroclor-1254 is below detection limit and not expected to be present.		Location represents mid concentrations of barium, chromium, copper, zinc; and low concentration of 4,4'-DDT.				Polychaete - 21 day, <i>Neanthes arenaceodentata</i> Survival: No statistically significant difference from reference locations. Growth: No statistically significant difference from reference locations.			
4,4'-DDT	0.0108	Low	0.008	Low	NA	0.00119				
Aroclor-1254	0.00801 U	NA	NA	NA	500	0.0227				
Barium	145	Mid	198	Mid	330	NA				
Chromium	30	Mid	30.9	Mid	0.4	81				
Copper	27.8	Mid	27.4	Mid	61	34				
Zinc	288	Mid	309 J	Mid	120	150				
BERA Sample ID: NAS06 North Soil Area RI/FS Sample ID:ND1SB01	Location represents low concentrations of barium, chromium, copper, and zinc. Aroclor-1254 and 4,4'-DDT are below detection limits and not expected to be present.		Location represents low concentrations of barium, chromium, copper, and zinc.				Polychaete - 21 day, <i>Neanthes arenaceodentata</i> Survival: No statistically significant difference from reference locations. Growth: No statistically significant difference from reference locations.			
4,4'-DDT	0.00016 U	NA	NA	NA	NA	0.00119				
Aroclor-1254	0.00415 U	NA	NA	NA	500	0.0227				
Barium	46.1	Low	52.2	Low	330	NA				
Chromium	11.7	Low	13.4	Low	0.4	81				
Copper	8.04	Low	10.8	Low	61	34				
Zinc	32.6	Low	62.3 J	Low	120	150				

Table 51
Summary of Results for North Area Soil

North Area Soil							Mean Bioassay Results**			
Location	RI/FS Concentration Gradient (mg/kg DW)		2010 BERA Concentration Gradient (mg/kg DW)		Soil Benchmark (mg/kg DW)	Marine Sediment Benchmark (mg/kg DW)	Mean Bioassay Results**			
BERA Sample ID: NAS07 North area Background Soil Location Background Soil BSS-01	Represents background with low chromium and high zinc concentrations.		Represents background with low chromium and copper concentrations; and high barium and zinc concentrations.				Polychaete - 21 day, <i>Neanthes arenaceodentata</i>			
Barium	NA	NA	340	High	330	NA	Location	Mean Survival (%)	Mean Biomass (mg)	Mean Dry Wt (mg) *
Chromium	17.6	Low	12.4	Low	0.4	81	NAS07 (Ref 1)	92	1.533	1.679
Copper	NA	NA	10.1	Low	61	34				
Zinc	969	High	501	High	120	150				
BERA Sample ID: NAS08 North area Background Soil Location Background Soil BSS-02	Represents background with low chromium and zinc concentrations; and mid barium concentrations.		Represents background with low chromium and copper concentrations; and mid barium and zinc concentrations.				Polychaete - 21 day, <i>Neanthes arenaceodentata</i>			
Barium	361	Mid	182	Mid	330	NA	Location	Mean Survival (%)	Mean Biomass (mg)	Mean Dry Wt (mg) *
Chromium	17.6	Low	13.6	Low	0.4	81	NAS08 (Ref 2)	64	0.688	1.008
Copper	NA	NA	12.6	Low	61	34				
Zinc	81.2	Low	182	Mid	120	150				
BERA Sample ID: NAS09 North area Background Soil Location Background Soil BSS-03	Represents background with low chromium and zinc concentrations.		Represents background with low chromium, copper, and zinc concentrations; and mid barium concentrations.				Polychaete - 21 day, <i>Neanthes arenaceodentata</i>			
Barium	NA	NA	172	Mid	330	NA	Location	Mean Survival (%)	Mean Biomass (mg)	Mean Dry Wt (mg) *
Chromium	20.1	Low	13.3	Low	0.4	81	NAS09 (Ref 3)	60	0.5512	0.9815
Copper	NA	NA	11	Low	61	34				
Zinc	77	Low	63.1	Low	120	150				

Notes:

bgs - below ground surface

DW - dry weight

H - bias in results likely to be high

J - estimated value

NA - not analyzed, available, or applicable

U - not detected

High
Mid
Low

= High concentration within the gradient

= Mid concentration within the gradient

= Low concentration within the gradient

Bolding indicates that the detected concentration

is greater than an ecological screening benchmark (Table 6 Final BERA WP & SAP; URS, 2010a)

Results for duplicate samples are separated by a "/".

* The primary growth endpoint Dry Wt is the dry weight of surviving organisms divided by the number of surviving organisms. Biomass (the dry weight of surviving organisms divided by initial number of organisms) is not routinely applied to sediment testing (EPA, 2000).

**Appendix B of BERA shows all of the individual replicates for each test chamber.

This table presents the mean bioassay results for each sample based on five replicates.

Table 52
Summary of Grain Size Data for Wetland Sediment

Location Sample Date Sample ID	EWSED01 8/12/2010 EWSED01	EWSED02 8/12/2010 EWSED02	EWSED03 8/13/2010 EWSED03	EWSED04 8/13/2010 EWSED04	EWSED05 8/12/2010 EWSED05	EWSED06 8/12/2010 EWSED06	EWSED07 8/13/2010 EWSED07	EWSED08 8/13/2010 EWSED08	EWSED09 8/13/2010 EWSED09
Description	Units								
Gravel, Fine	%	3.49	5.66	7.73	2.19	2.64	0.87	3.68	12.1
Gravel, Medium	%	2.52	53.7	47.9	0.57	0.34	18.7	0.16	12.7
Sand, Coarse	%	2.82	1.77	3.01	3.18	4.49	0.41	3.76	3.92
Sand, Fine	%	2.12	2.29	1.93	7.02	8.91	2.06	7.84	2.62
Sand, Medium	%	1.8	1.15	1.75	2.98	4.93	0.27	3.47	1.93
Sand, Very Coarse	%	5.58	2.91	4.83	2.88	2.83	0.67	5.02	8.04
Sand, Very Fine	%	2.42	1.64	0.93	4.59	6.96	1.24	1.15	2.51
Silt	%	61.6	13.7	29.2	81.4	38.7	21.6	39.8	44.3
Clay	%	21.2	10.8	1.7	0.6	27.5	61.7	38.2	40.4

Table 53
Summary of AVS, SEM and Organic Carbon-Normalized Excess SEM Data for Wetland Sediment

Location Sample Date Sample ID		EWSED01 8/12/2010 EWSED01	EWSED02 8/12/2010 EWSED02	EWSED03 8/13/2010 EWSED03	EWSED04 8/13/2010 EWSED04	EWSED05 8/12/2010 EWSED05	EWSED06 8/12/2010 EWSED06	EWSED07 8/13/2010 EWSED07	EWSED08 8/13/2010 EWSED08	EWSED09 8/13/2010 EWSED09	
Analyte	CAS No.	Units									
Acid-Volatile Sulfide	18496-25-8	μmol/g _{sed}	0.018 J	< 0.005	< 0.004	0.05	< 0.004	0.33	< 0.004	2.04	< 0.004
Cadmium, SEM	7440-43-9_SEM	μmol/g _{sed}	< 0.0006	0.0007	0.0011	0.0012	< 0.0005	0.0019	0.0008	< 0.0008	< 0.0005
Copper, SEM	7440-50-8_SEM	μmol/g _{sed}	0.024	0.03	0.057	0.16	0.082	0.092	0.065	0.016	0.011
Lead, SEM	7439-92-1_SEM	μmol/g _{sed}	0.015	0.029	0.038	0.088	0.055	0.04	0.037	0.021	0.009
Nickel, SEM	7440-02-0_SEM	μmol/g _{sed}	0.015	0.03	0.012	0.016	0.011	0.019	0.015	0.028	0.005
Zinc, SEM	7440-66-6_SEM	μmol/g _{sed}	0.148	0.259	1.55	1.02	1.74	3.79	0.617	0.255	0.039

AVS - acid volatile sulfides

SEM - simultaneously extracted metals

foc - fraction organic carbon (from total organic carbon values in Table 6 of BERA)

If detected less than the detection limit, then the detection limit was used in the calculation.

ΣSEM	μmol/g _{sed}	0.2	0.3	1.7	1.3	1.9	3.9	0.7	0.3	0.1
ΣSEM/AVS	---	11.3	69.7	415	25.7	472	11.9	184	0.157	16.1

For SEM/AVS ratios above 1.0, the potential exists for metal toxicity since sufficient AVS to completely form insoluble metal sulfides is not present. This excludes consideration of organic carbon (see below).

foc	g _{oc} /g _{sed}	0.0594	0.0273	0.0182	0.0167	0.0181	0.0215	0.0239	0.0468	0.0112
ΣSEM-AVS	μmol/g _{sed}	0.185	0.344	1.654	1.235	1.885	3.613	0.731	---	0.061
(ΣSEM-AVS)/foc	μmol/g _{oc}	3.1	12.6	90.9	74.0	104.1	168.0	30.6	---	5.4

For organic carbon-normalized excess ΣSEM ratios ≤130 μmol/g_{oc}, the samples are predicted to be non-toxic; values between 130 and 3,000 μmol/g_{oc} lie where the prediction of toxicity is uncertain; and values greater than 3,000 μmol/g_{oc} are predicted to be toxic (EPA 2005).

Table 54
Summary of Results for Intracoastal Waterway Sediment

Intracoastal Waterway Sediment (all samples from 0-0.5 ft bgs)								
Location	RI/FS Concentration Gradient (mg/kg DW)		2010 Analytical Results			Marine Sediment Benchmark (mg/kg DW)	Pore Water (mg/L)	Marine Surface Water Benchmark (mg/L)
			2010 BERA Concentration Gradient (mg/kg DW)		Mean Bioassay Results***			
BERA Sample ID: EIWSED01 Intracoastal Waterway Sediment RI/FS Sample ID: IWSE-01	Location represents high concentration of 4,4'-DDT; and low concentrations of four PAHs. Hexachlorobenzene is below detection limit and not expected to be present.	Location represents mid concentrations of 2 PAHs; and low concentrations of 6 PAHs and 4,4'-DDT.	0.00119	< 0.0000035 J	0.000001			
4,4'-DDT	0.00332	High	0.00023 J	Low				
Acenaphthene	0.013 U	NA	0.0071	Low	0.016	0.000052	0.0404	
Benzo(a)anthracene	0.0133 U	NA	0.03	Low	0.261	< 0.0000035	NA	
Chrysene	0.0145	Low	0.046	Low	0.384	< 0.0000046	NA	
Dibenz(a,h)anthracene	0.0126 U	NA	0.0046	Low	0.0634	< 0.0000034	NA	
Fluoranthene	0.0309	Low	0.12	Mid	0.6	< 0.0000059	0.00296	
Fluorene	0.0129 U	NA	0.019	Low	0.019	0.000043	0.05	
Hexachlorobenzene	0.0161 U	NA	NA	NA	0.006	< 0.0000035	0.129	
Phenanthrene	0.0373	Low	0.15	Mid	0.24	0.000031	0.0046	
Pyrene	0.0244	Low	0.081	Low	0.665	< 0.0000047	0.00024	
Total PAHs*	NA	NA	0.46	NA	4.022	NA	NA	
Total Organic Carbon	NA	NA	4,130	NA	NA	NA	NA	
BERA Sample ID EIWSED02 Intracoastal Waterway Sediment RI/FS sample ID: IWSE03	Location represents high concentrations of 2 PAHs; mid concentrations of 5 PAHs; and low concentrations of 1 PAH and 4,4'-DDT. Hexachlorobenzene is below detection limit and not expected to be present.	Location represents high concentration of 1 PAH; mid concentrations of 5 PAHs; and low concentrations of 2 PAHs and 4,4'-DDT.	0.00119	< 0.0000098 J	0.000001			
4,4'-DDT	0.000575	Low	0.00190	Low				
Acenaphthene	0.0631	Mid	0.023	Low	0.016	0.000037	0.0404	
Benzo(a)anthracene	0.395	Mid	0.24	Mid	0.261	< 0.0000028	NA	
Chrysene	0.475	Mid	0.31	Mid	0.384	< 0.0000037	NA	
Dibenz(a,h)anthracene	0.151	Mid	0.063	Mid	0.0634	< 0.0000027	NA	
Fluoranthene	0.804	High	0.52	High	0.6	< 0.0000048	0.00296	
Fluorene	0.0406	Low	0.020	Low	0.019	0.000029	0.05	
Hexachlorobenzene	0.0156 U	NA	NA	NA	0.006	< 0.0000031	0.129	
Phenanthrene	0.508	Mid	0.24	Mid	0.24	0.000022 J	0.0046	
Pyrene	0.862	High	0.47	Mid	0.665	< 0.0000038	0.00024	
Total PAHs*	NA	NA	1.9	NA	4.022	NA	NA	
Total Organic Carbon	NA	NA	7,200	NA	NA	NA	NA	

Table 54
Summary of Results for Intracoastal Waterway Sediment

Intracoastal Waterway Sediment (all samples from 0-0.5 ft bgs)								
Location	RI/FS Concentration Gradient (mg/kg DW)		2010 Analytical Results			Marine Sediment Benchmark (mg/kg DW)	Pore Water (mg/L)	Marine Surface Water Benchmark (mg/L)
			2010 BERA Concentration Gradient (mg/kg DW)		Mean Bioassay Results***			
BERA Sample ID: EIWSED03								
Intracoastal Waterway Sediment RI/FS sample ID: IWSE04	Location represents mid concentrations of 5 PAHs and low concentration of 4,4'-DDT. Hexachlorobenzene is below detection limit and not expected to be present.	Location represents mid concentrations of 3 PAHs; and low concentrations of 5 PAHs and 4,4'-DDT.						
4,4'-DDT	0.0011	Low	0.00032 J / 0.00089 J	Low	0.00119	< 0.0000013 J	0.000001	
Acenaphthene	0.0176 U	NA	0.0052 / 0.0022 J	Low	0.016	0.000024	0.0404	
Benzo(a)anthracene	0.018 U	NA	0.052 / 0.048	Low	0.261	< 0.0000026	NA	
Chrysene	0.164	Mid	0.07 / 0.067	Mid	0.384	< 0.0000034	NA	
Dibenz(a,h)anthracene	0.0694	Mid	0.015 / 0.014	Low	0.0634	< 0.0000025	NA	
Fluoranthene	0.231	Mid	0.12 / 0.094	Mid	0.6	< 0.0000044	0.00296	
Fluorene	0.0173 U	NA	0.0067 / 0.0032 J	Low	0.019	0.00002 J	0.05	
Hexachlorobenzene	0.0217 U	NA	NA	NA	0.006	< 0.00000039	0.129	
Phenanthrene	0.125	Mid	0.071 / 0.043	Low	0.24	0.000012 J	0.0046	
Pyrene	0.285	Mid	0.1 / 0.11	Mid	0.665	< 0.0000035	0.00024	
Total PAHs*	NA	NA	0.44 / 0.38	NA	4.022	NA	NA	
Total Organic Carbon	NA	NA	6,320 / 6,680	NA	NA	NA	NA	
BERA Sample ID: EIWSED04								
Intracoastal Waterway Sediment RI/FS sample ID: IWSE07	Location represents mid concentrations of 6 PAHs; and low concentrations of 2 PAHs and hexachlorobenzene.	Location represents mid concentrations of 2 PAHs; and low concentrations of 6 PAHs.						
4,4'-DDT	0.000216 U	NA	NA	NA	0.00119	< 0.00000076 J	0.000001	
Acenaphthene	0.0239	Low	0.0029 J	Low	0.016	< 0.0000088	0.0404	
Benzo(a)anthracene	0.172	Mid	0.032	Low	0.261	< 0.0000052	NA	
Chrysene	0.197	Mid	0.054	Low	0.384	< 0.0000068	NA	
Dibenz(a,h)anthracene	0.235	Mid	0.0087 J	Low	0.0634	< 0.000005	NA	
Fluoranthene	0.124	Mid	0.074	Mid	0.6	< 0.0000088	0.00296	
Fluorene	0.0277	Low	0.0031 J	Low	0.019	< 0.0000076	0.05	
Hexachlorobenzene	0.0319	Low	< 0.0012	NA	0.006	< 0.00000037	0.129	
Phenanthrene	0.0645	Mid	0.028	Low	0.24	< 0.00001	0.0046	
Pyrene	0.134	Mid	0.073	Mid	0.665	< 0.000007	0.00024	
Total PAHs*	NA	NA	0.28	NA	4.022	NA	NA	
Total Organic Carbon	NA	NA	5,480	NA	NA	NA	NA	

Table 54
Summary of Results for Intracoastal Waterway Sediment

Intracoastal Waterway Sediment (all samples from 0-0.5 ft bgs)								
Location	RI/FS Concentration Gradient (mg/kg DW)		2010 Analytical Results			Marine Sediment Benchmark (mg/kg DW)	Pore Water (mg/L)	Marine Surface Water Benchmark (mg/L)
			2010 BERA Concentration Gradient (mg/kg DW)	Marine Sediment Benchmark (mg/kg DW)	Pore Water (mg/L)			
BERA Sample ID: EIWSED05 Intracoastal Waterway Sediment RI/FS sample ID: IWSE08	Location represents mid concentrations of 5 PAHs; and low concentration of 4,4'-DDT. Hexachlorobenzene is below detection limit and not expected to be present.	Location represents mid concentrations of 2 PAHs; and low concentrations of 6 PAHs and 4,4'-DDT.						
4,4'-DDT	0.000481	Low	0.00029 J	Low	0.00119	< 0.0000013 J / < 0.0000016 J	0.000001	
Acenaphthene	0.0155 U	NA	0.0046 J	Low	0.016	0.000027 / 0.000031	0.0404	
Benzo(a)anthracene	0.0675	Mid	0.042	Low	0.261	< 0.0000034 / < 0.0000028	NA	
Chrysene	0.0717	Mid	0.059	Low	0.384	< 0.0000044 / < 0.0000036	NA	
Dibenz(a,h)anthracene	0.0151 U	NA	0.01	Low	0.0634	< 0.0000033 / < 0.0000027	NA	
Fluoranthene	0.158	Mid	0.1	Mid	0.6	< 0.0000057 / < 0.0000047	0.00296	
Fluorene	0.0153 U	NA	0.0045 J	Low	0.019	0.000023 J / 0.000026	0.05	
Hexachlorobenzene	0.0192 U	NA	NA	NA	0.006	< 0.0000037 / < 0.0000044	0.129	
Phenanthrene	0.0756	Mid	0.051	Low	0.24	0.000015 J / 0.000015 J	0.0046	
Pyrene	0.158	Mid	0.084	Mid	0.665	< 0.0000045 / < 0.0000037	0.00024	
Total PAHs*	NA	NA	0.36	NA	4.022	NA	NA	
Total Organic Carbon	NA	NA	6,820	NA	NA	NA	NA	
BERA Sample ID: EIWSED06 Intracoastal Waterway Reference Sediment Sample located in Intracoastal Waterway Background Area near RI Sample location IWSE22	No detections above screening values were indicated in the vicinity of this location during RI sampling.	Location represents low concentrations of 3 PAHs.						
4,4'-DDT	NA	NA	< 0.00017	NA	0.00119	< 0.000001 J	0.000001	
Acenaphthene	NA	NA	< 0.0014 JL	NA	0.016	< 0.0000088	0.0404	
Benzo(a)anthracene	NA	NA	< 0.0017 JL	NA	0.261	< 0.0000052	NA	
Chrysene	NA	NA	0.0019 JL	Low	0.384	< 0.0000068	NA	
Dibenz(a,h)anthracene	NA	NA	< 0.0015 JL	NA	0.0634	< 0.000005	NA	
Fluoranthene	NA	NA	0.0019 JL	Low	0.6	< 0.0000088	0.00296	
Fluorene	NA	NA	< 0.0011 JL	NA	0.019	< 0.0000076	0.05	
Hexachlorobenzene	NA	NA	< 0.0012 JL	NA	0.006	< 0.0000039	0.129	
Phenanthrene	NA	NA	< 0.0014 JL	NA	0.24	< 0.00001	0.0046	
Pyrene	NA	NA	0.0025 JL	Low	0.665	< 0.000007	0.00024	
Total PAHs*	NA	NA	0.006	NA	4.022	NA	NA	
Total Organic Carbon	NA	NA	6,060	NA	NA	NA	NA	

Table 54
Summary of Results for Intracoastal Waterway Sediment

Intracoastal Waterway Sediment (all samples from 0-0.5 ft bgs)								
Location	RI/FS Concentration Gradient (mg/kg DW)	2010 Analytical Results				Mean Bioassay Results***		
		2010 BERA Concentration Gradient (mg/kg DW)	Marine Sediment Benchmark (mg/kg DW)	Pore Water (mg/L)	Marine Surface Water Benchmark (mg/L)			
BERA Sample ID: EIWSed07 Intracoastal Waterway Reference Sediment Sample located in Intracoastal Waterway Background Area near RI Sample location IWSE24	No detections above screening values were indicated in the vicinity of this location during RI sampling.	Location represents low concentrations of 2 PAHs.					<i>Polychaete - 28 day, Neanthes arenaceodentata</i>	
4,4'-DDT	NA	NA	< 0.00017	NA	0.00119	< 0.00000058	0.000001	
Acenaphthene	NA	NA	< 0.0014 JL	NA	0.016	< 0.000026	0.0404	
Benzo(a)anthracene	NA	NA	< 0.0017 JL	NA	0.261	< 0.000018	NA	
Chrysene	NA	NA	< 0.0015 JL	NA	0.384	< 0.000028	NA	
Dibenz(a,h)anthracene	NA	NA	< 0.0015 JL	NA	0.0634	< 0.000017	NA	
Fluoranthene	NA	NA	0.0018 JL	Low	0.6	< 0.00002	0.00296	
Fluorene	NA	NA	< 0.0011 JL	NA	0.019	< 0.000027	0.05	
Hexachlorobenzene	NA	NA	< 0.0012 JL	NA	0.006	< 0.000022	0.129	
Phenanthrene	NA	NA	< 0.0014 JL	NA	0.24	< 0.000022	0.0046	
Pyrene	NA	NA	0.0018 JL	Low	0.665	< 0.000019	0.00024	
Total PAHs*	NA	NA	0.004	NA	4.022	NA	NA	
Total Organic Carbon	NA	NA	5,090	NA	NA	NA	NA	

Notes:

bgs - below ground surface

DW - dry weight

J - estimated value

NA - not analyzed, available, or applicable

U - not detected

L - bias in results likely to be low

- | | |
|------|--|
| High | = High concentration within the gradient |
| Mid | = Mid concentration within the gradient |
| Low | = Low concentration within the gradient |

Bolding indicates that the detected concentration is greater than the ecological screening benchmark (Table 6 Final BERA WP & SAP; URS, 2010a)

Results for duplicate samples are separated by a "/".

* Total PAHs represents the summation of the PAH COPECs detected in sediment from the 2010 data.

** The primary growth endpoint Dry Wt is the dry weight of surviving organisms divided by the number of surviving organisms. Biomass (the dry weight of surviving organisms divided by initial number of organisms) is not routinely applied to sediment testing (EPA, 2000).

***Appendix B of the BERA shows all of the individual replicates for each test chamber.
This table presents the mean bioassay results for each sample based on five replicates.

Table 55
Summary of Results for Wetland Surface Water

Sample IDs, Location and Analytes	Original Selection Rationale	COPEC	2010 BERA Analytical Results (mg/L)	Marine Surface Water Acute Criteria* (mg/L)	Bioassay Results
Surface Water					
EWSW01 Surface water location off-site north of the North Area near RI/FS sample location 2WSW1	Dissolved copper and total acrolein concentrations exceed ecological benchmarks for water	Acrolein Copper	< 0.00096 / < 0.00096 0.00338 J / 0.00331	0.03 0.0135	Brine shrimp (<i>Artemia salina</i>) Survival: Not acutely toxic.
EWSW02 Surface water reference sample location off-site north of the North Area west of RI/FS surface water sample locations	No impacts above screening values were indicated in the vicinity of this location during RI sampling				Location Dry - could not be sampled for testing
EWSW03 Surface water location off-site north of the North Area near RI/FS sample location 2WSW6	Dissolved copper concentration exceeds ecological benchmark for water	Copper	0.00854	0.0135	Brine shrimp (<i>Artemia salina</i>) Survival: Not acutely toxic .
EWSW04 Surface water from the pond area with silver concentrations greater than the benchmark	Dissolved silver concentration exceeds ecological benchmark for water	Silver	0.000011 J	0.002	Brine shrimp (<i>Artemia salina</i>) Survival: Not acutely toxic.

Notes:

COPEC - contaminant of potential ecological concern

J - estimated value

Results for duplicate samples are separated by a "/".

*TCEQ, 2005. Aquatic Life Surface Water Risk Based Exposure Limits. Update: October 2005.

TABLE 56 - ALTERNATIVE 3 PRELIMINARY COST PROJECTION

Component No.	Component Description	Key Assumptions	Quantity	Unit	Unit Cost	Estimated Cost		
						One-time	Annual O&M	
1	Institutional Controls Deed Recordation/Restrictive Covenant	Includes modification of current restrictive covenants.	1	LS	\$10,000	\$10,000	-	
	Institutional Controls Subtotal							
2	Operation and Maintenance Planning O&M Plan Preparation	Includes preparation of plan for cap inspection/repair and groundwater monitoring.	1	LS	\$10,000	\$10,000	\$0	
	Operation and Maintenance Planning Subtotal							
3	Groundwater Extraction/Treatment for Hydraulic Control	Pre-Design Investigation Extraction Well Installation Piping Treatment Compound Containment Treatment Compound Fence Sedimentation/Surge Tank Low Profile Aeration Unit Catalytic Oxidation Unit POTW Connection Electrical/Controls Installation Electricity Natural Gas Effluent Sampling/Analysis POTW Charges General System O&M Groundwater Monitoring	Includes pump testing and modeling evaluation to determine target well spacing for hydraulic control. (Does not include any additional well installation). Assume 14 extraction wells installed in Zone A immediately west and south of capped area (approx. 50 ft. spacing). Assume 6 extraction wells installed in Zone B. Assumes wells 6 in. diam. Includes pump costs and installation. Includes pump replacement every 10 years. Includes piping from well to treatment compound and piping from treatment compound to POTW connection at Marlin Ave. Assume 50 ft. by 50 ft. concrete slab with 2 ft containment walls Assume chain link fence with barbed wire. Assume 1,000 gal poly tank Assume treatment system flow rate of 40 gpm. Annual O&M cost includes maintenance/cleaning and assumes one equipment replacement during 30 year evaluation period. Assume vapor flow rate of 650 scfm. O&M costs include assumption of catalyst replacement (\$20,000) every 5 years and emissions monitoring (PID). Includes application preparation/submittal and connection construction. Fuel for catalytic oxidation unit. Assume 40 gpm system discharge. Includes labor and miscellaneous parts. Assumes annual sampling of 9 Zone A wells, 5 Zone B wells, 1 Zone C well with analyses for VOCs.	1 20 700 1 200 1 1 1 1 1 1 1 12 2,100 12 1	LS wells ft LS ft LS LS LS LS LS LS mo. 10,000 gal mo. LS	\$25,000 \$8,000 \$25 \$10,000 \$20 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$38.40 \$1,000	\$160,000 \$10,000 \$17,500 \$4,000 \$3,000 \$25,000 \$400,000 \$20,000 \$15,000 \$3,000 \$1,000 \$80,640 \$12,000 \$12,000	\$10,000 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0

TABLE 56 - ALTERNATIVE 3 PRELIMINARY COST PROJECTION

Component No.	Component Description	Key Assumptions	Quantity	Unit	Unit Cost	Estimated Cost	
						One-time	Annual O&M
3	Groundwater Extraction/Treatment for Hydraulic Control (continued)						
	Well Repair/Replacement	Assumes repair of well head/protective casing required at 2 wells per year.	2	wells	\$1,000		\$2,000
	Plugging/abandonment of monitoring wells no longer in use.	Assumes plugging of 20 Zone A wells (wells in South Area and MW05).				\$10,000	-
	Engineering Design/Project Management/ Construction Management/ Reporting	Assumed at 25% of construction components cost (per EPA, 2000).				\$166,875	
	Groundwater Extraction/Treatment for Hydraulic Control Subtotal					\$859,000	\$243,600
	Subtotal	Sum of components subtotals.				\$879,000	\$243,600
	Contingency	Assumed at 20% (10% scope + 10% bid) per EPA, 2000.				\$176,000	\$48,700
	Subtotal with Contingency					\$1,055,000	\$292,300
	Present Worth of Annual Costs	Assume 30 years at 7% discount factor.				\$3,630,000	
	Total Preliminary Estimated Present Worth Cost	Includes present worth of annual costs.				\$4,700,000	
	Total Preliminary Estimated Undiscounted Cost	Assumes no discount for annual costs (30 years).				\$9,800,000	

Notes:

¹LS = Lump Sum Estimate